

Technical Memorandum

TO: Marv Coleman, Washington State Department of Ecology
CC: Eric Huseby, City of Tacoma
FROM: Sierra Mott and Jennifer Wynkoop
DATE: April 11, 2018
RE: **Long-Term Groundwater Monitoring Status Report No. 5
2018 Annual Monitoring
Former Sauro's Cleanerama Site
Tacoma, Washington
Project No. 0094048.100.101**



Introduction

On behalf of the City of Tacoma (City), Landau Associates, Inc. (LAI) is providing results for long-term groundwater monitoring activities at the former Sauro's Cleanerama site (site). Figure 1 shows the site location.

The City conducted 2 years of semiannual sampling (for a total of four sampling events) at nine monitoring wells as outlined in the Cleanup Action Plan (CAP; LAI 2014), which is part of the Agreed Order (No. DE 11080) between the City and Washington State Department of Ecology (Ecology). Under the CAP, the City is implementing a monitored natural attenuation (MNA) remedy that included 2 years of semiannual groundwater monitoring beginning in January 2016, followed by annual groundwater monitoring until groundwater at the site reaches cleanup goals (CAP estimates 26 years of annual sampling). The fourth and final semiannual monitoring event was completed in July 2017 and the subsequent technical memorandum recommended conducting annual groundwater monitoring effective in January 2018 (LAI 2017). The City received approval of the proposed sampling schedule from Ecology¹. However, due to scheduling issues, the 2018 annual groundwater monitoring event was conducted in early February 2018. Going forward, groundwater monitoring will be conducted annually in January.

This technical memorandum summarizes the first annual groundwater monitoring event, conducted February 8, 2018. Groundwater monitoring includes collection of volatile organic compounds (VOCs) and MNA geochemical samples in accordance with the CAP.

Groundwater Monitoring Program Summary

The existing site groundwater monitoring well network includes 17 wells. Of the 17 wells, 9 were selected for long-term monitoring under the CAP. Figure 2 shows the monitoring well network and the nine wells selected for continued monitoring. Table 1 presents a sampling matrix for the long-term monitoring wells.

¹ Email from Marv Coleman, Toxics Cleanup Program, Ecology Southwest Regional Office, to Sierra Mott, LAI, re: Draft Sauro's Long-Term Groundwater Monitoring Status Report No. 4. January 22, 2018.

During the February 2018 sampling event, samples were collected in accordance with the Sampling and Analysis Plan (LAI 2013) and the sample matrix in Table 1. VOC and MNA samples are collected using a peristaltic pump at MW2. The other eight wells are sampled using passive diffusion bags for VOCs and dedicated Waterra foot valves for MNA parameters. VOC samples at RNS-MW6 were collected at two discrete depths because of the relatively long screen (20 feet) and prior sampling has demonstrated stratification within the well; all other wells are sampled at a single depth. All samples were submitted under proper chain of custody to TestAmerica Laboratories, Inc. (TestAmerica) located in Tacoma, Washington.

All groundwater samples were analyzed by the laboratory for VOC constituents of concern: tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cDCE), and vinyl chloride (VC) and MNA parameters (nitrate, nitrite, total organic carbon [TOC], sulfate, sulfide, chloride, and dissolved gasses [acetylene, methane, ethane, and ethene]). Samples were analyzed by the following methods: VOCs by US Environmental Protection Agency (EPA) Method 8260; nitrate/nitrite by EPA Method 300.0; TOC by EPA Method 5310B; sulfate/sulfide/chloride by EPA Method 4500; and dissolved gasses by EPA Method RSK-175. Field parameters were also collected, including conductivity and dissolved oxygen (DO) using a field meter (YSI model 556 or equivalent) and ferrous iron using a HACH® field test kit (Model IR-18C). A duplicate sample was collected at LAI-MW4 (Dup1) for quality control purposes. Data will be electronically submitted to Ecology's Environmental Information Management system following submittal of this report. Table 2 presents the analytical methods, reporting limits, preservatives, and holding times. Table 3 and Figure 3 present VOC analytical data. Table 4 presents MNA analytical data. VOC time series plots data are presented in Attachment 1.

Volatile Organic Compound Results

The VOC plume at the site is somewhat bifurcated with main portion of the plume extending east-northeast of the property and a smaller, low concentration portion of the plume extending to the south-southeast of the property. The east-northeast segment of the plume is characterized by monitoring wells LAI-MW5, RNS-MW6, MW-13, LAI-MW3, LAI-MW1, and LAI-MW4. The south-southeast segment of the plume is characterized by monitoring wells RNS-MW2 and MW-2.

VOC analytical results from the February 2018 sampling event are consistent with historical results. At three wells (LAI-MW1, LAI-MW4, and LAI-MW5), all VOC concentrations have dropped below their respective cleanup levels. LAI-MW5 is located adjacent to the northeast corner of the property, while LAI-MW1 and LAI-MW4 are located at the downgradient end of the north-northeast segment of the plume. At the six remaining wells, one or more VOCs exceeded cleanup levels:

- LAI-MW2, MW13, and RNS-MW6 (42.5 and 52.5), which are located in the core of the north-northeast plume segment continue to have the highest concentrations of VOCs. Results indicate concentrations above cleanup levels for all four constituents except for VC at RNS-MW6-42.5) with PCE and TCE concentrations having the largest exceedances of cleanup levels. Concentrations of PCE at these wells ranged from 200 micrograms per liter ($\mu\text{g/L}$) to 1,300

µg/L and concentrations of TCE ranged from 63 µg/L to 340 µg/L. The cleanup level for both TCE and PCE is 5 µg/L.

- LAI-MW3 results indicate concentrations of PCE and TCE exceeded cleanup levels; however, concentrations are somewhat lower (58 µg/L and 26 µg/L, respectively) than at the three wells discussed above. LAI-MW3 is located downgradient of MW-13.
- RNS-MW2 results indicate the concentration of PCE (17 µg/L) continues to exceed the cleanup level to the south-southeast of the property. However, the concentration of PCE at the adjacent MW2 well (0.25 µg/L) is well below the CUL.
- In well MW2, results indicate that only the VC exceeded the cleanup level of 0.2 µg/L with a concentration of 0.37 µg/L.

VOC concentration time series plots (Attachment 1) were examined to identify data trends over time. The following observations were made regarding VOC concentration trends:

- LAI-MW1, LAI-MW4, and LAI-MW5 historically showed decreasing concentration trends with recent trends indicating that concentrations of all VOCs remain below cleanup levels and near or below the laboratory reporting limits.
- MW2 and MW13 have also shown decreasing concentration trends for all four VOCs over time.
- RNS-MW6 is sampled at two depths within the screen. The data trends at the 52.5 ft sampling depth indicate decreasing concentrations from the historical maximums in 2012 and 2013. However, data trends at the 42.5 ft depth have been relatively flat since 2013 and PCE, TCE, and cDCE showed slight increases in concentration compared to 2017 while VC showed a slight decrease compared to 2017.
- Data trends at LAI-MW2 and LAI-MW3 previously appeared to be relatively flat; however, VOC concentrations appear to have declining trends over the last five sampling events.
- Concentration trends at RNS-MW2 vary by constituent. PCE concentrations appear to have transitioned from an increasing trend to a decreasing trend over the last five sampling events; meanwhile, TCE concentrations appear to have no trend over the same period. CDCE and VC concentrations at RNS-MW2 remain at very low (non-detect during the most recent sampling event).

The laboratory data package for the most recent sampling event (February 2018) is provided in Attachment 2.

Monitored Natural Attenuation Results

Natural attenuation of chlorinated ethenes occurs through several mechanisms with the primary mechanism being biologically mediated reductive dechlorination. For reductive dechlorination to occur the aquifer must be reducing and a food source (electron donor) for the bacteria must be available. Measures of aquifer redox conditions include DO, oxygen-reduction potential (ORP), nitrate, ferrous iron, sulfate, and methane. TOC concentration is a measure of available electron donor. In general, low concentrations of DO, nitrate, and sulfate and detections or elevated concentrations of

ferrous iron and methane are indicators of reduced aquifer conditions. However, the redox state of the aquifer can be variable and complex and assessment typically requires evaluation of multiple indicators.

MNA data appear to suggest favorable conditions for reductive-dechlorination at LAI-MW5 (near the source area) and LAI-MW4 (the most downgradient well). The highest TOC concentrations also occur at these wells, indicating the presence of electron donor. Indicators of reducing aquifer conditions and electron donor availability at LAI-MW4 and LAI-MW5 are summarized below:

- Ferrous iron was detected in both wells at concentrations of 1.5 milligrams per liter (mg/L) at LAI-MW4 and 2.0 mg/L at LAI MW5.
- Nitrate, nitrite, and sulfate were not detected above the laboratory reporting limit at either LAI-MW4 or LAI-MW5.
- Methane was detected at a concentration of 4.6 mg/L at LAI-MW4 and 9.5 mg/L at LAI-MW5.
- ORP readings were negative at both wells.
- TOC concentrations are somewhat elevated at both wells (concentrations of 4.6 mg/L and 9.3 mg/L at LAI-MW4 and LAI-MW5, respectively)

At the remaining seven wells, data were not conclusive regarding the potential for reductive dechlorination; however, low or no detection of nitrogen and negative ORP values indicate some capacity for reductive dechlorination at all wells. Additionally, concentrations at most wells appear to be declining. The laboratory data package for the most recent sampling event (February 2018) is provided in Attachment 2. February 2018 MNA data is presented in Table 4.

Occurrence of Problems

None occurred.

Planned Groundwater Monitoring Activities

Groundwater monitoring results will continue to be submitted to Ecology 60 days after completion of sampling activities. The next scheduled sampling event will occur in January 2019.

Use of this Report

This Technical Memorandum has been prepared for the exclusive use of the City of Tacoma and Ecology for specific application to the Sauro's Groundwater Monitoring project. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of LAI. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by LAI, shall be at the user's sole risk. LAI warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing

in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

Please contact us if you have any questions concerning groundwater monitoring activities or results presented in this status report. This document has been prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.



Sierra Mott
Project Scientist



Jennifer Wynkoop
Principal Scientist

SMM/JWW/jrc

[Y:\094\048.100\101 YEAR 1 2018\R\STATUS REPORT NO. 5\SAUROS GW MONITORING FEB 2018.DOCX]

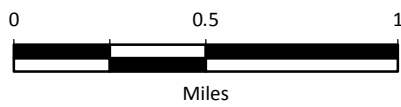
Attachments: Figure 1: Vicinity Map
Figure 2: Sauro's Cleanerama Monitoring Well Network
Figure 3: CDCE, PCE, TCE, and VC Detections in Groundwater (February 2018)
Table 1: Sample Matrix
Table 2: Sampling Laboratory and Field Parameter Details
Table 3: Constituents of Concern Groundwater Analytical Results
Table 4: Monitored Natural Attenuation Parameters
Attachment 1: Constituents of Concern Concentration Time Series Plots
Attachment 2: February 2018 Laboratory Data Package

References

- LAI. 2013. Draft Sampling and Analysis Plan, Former Sauro's Property, Tacoma, Washington. Landau Associates, Inc.
- LAI. 2014. Draft Cleanup Action Plan, Former Sauro's Cleanerama Site, Tacoma, Washington. Landau Associates, Inc.
- LAI. 2017. Long-Term Groundwater Monitoring Status Report No. 4 for July 2017, Former Sauro's Cleanerama Site, Tacoma, Washington. edited by Sierra Mott and Jennifer Wynkoop: Landau Associates, Inc.



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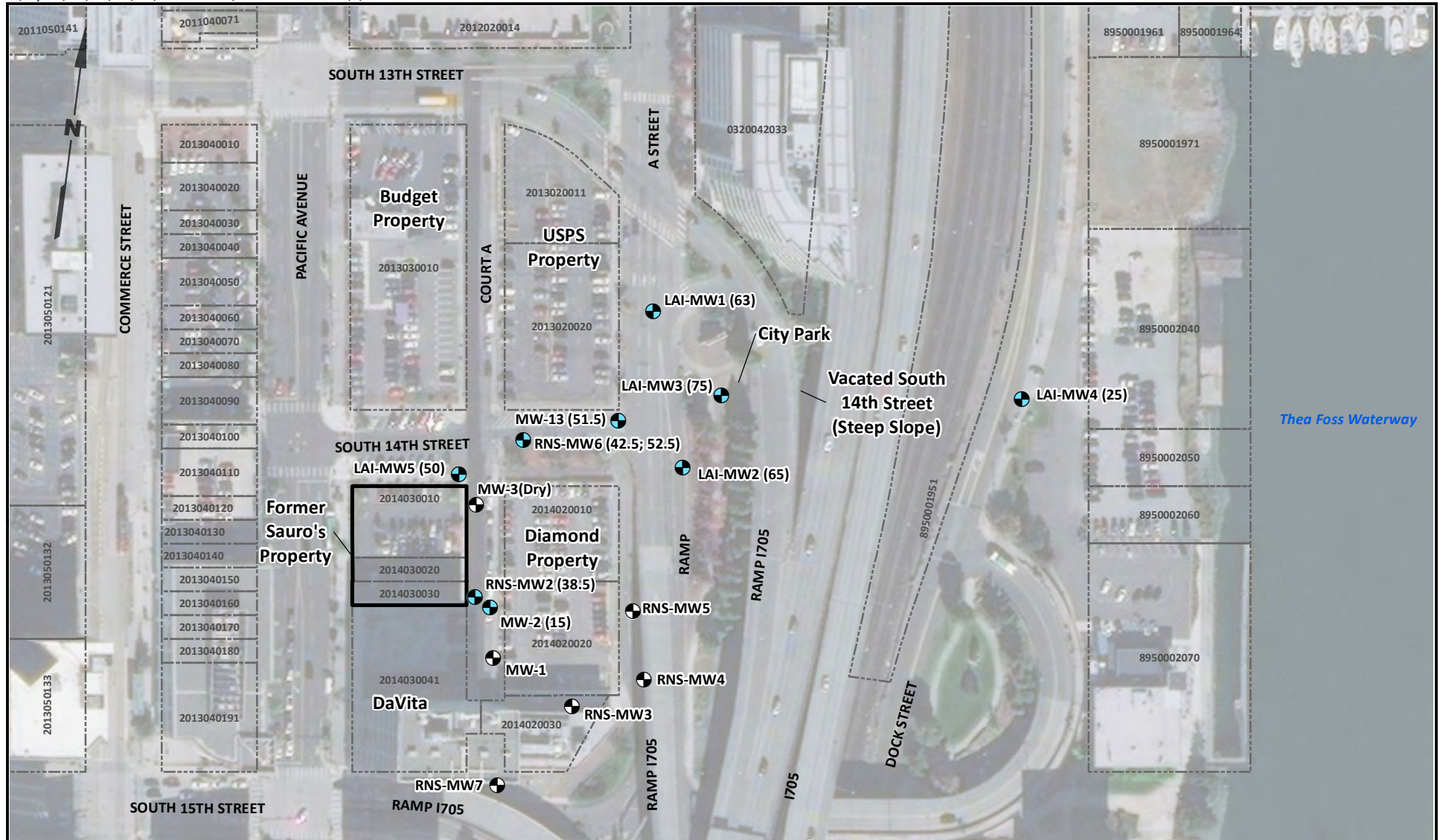
Data Source: Esri 2012







Sauro's Cleanerama
Tacoma, Washington

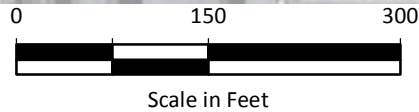
Vicinity Map

Figure
1



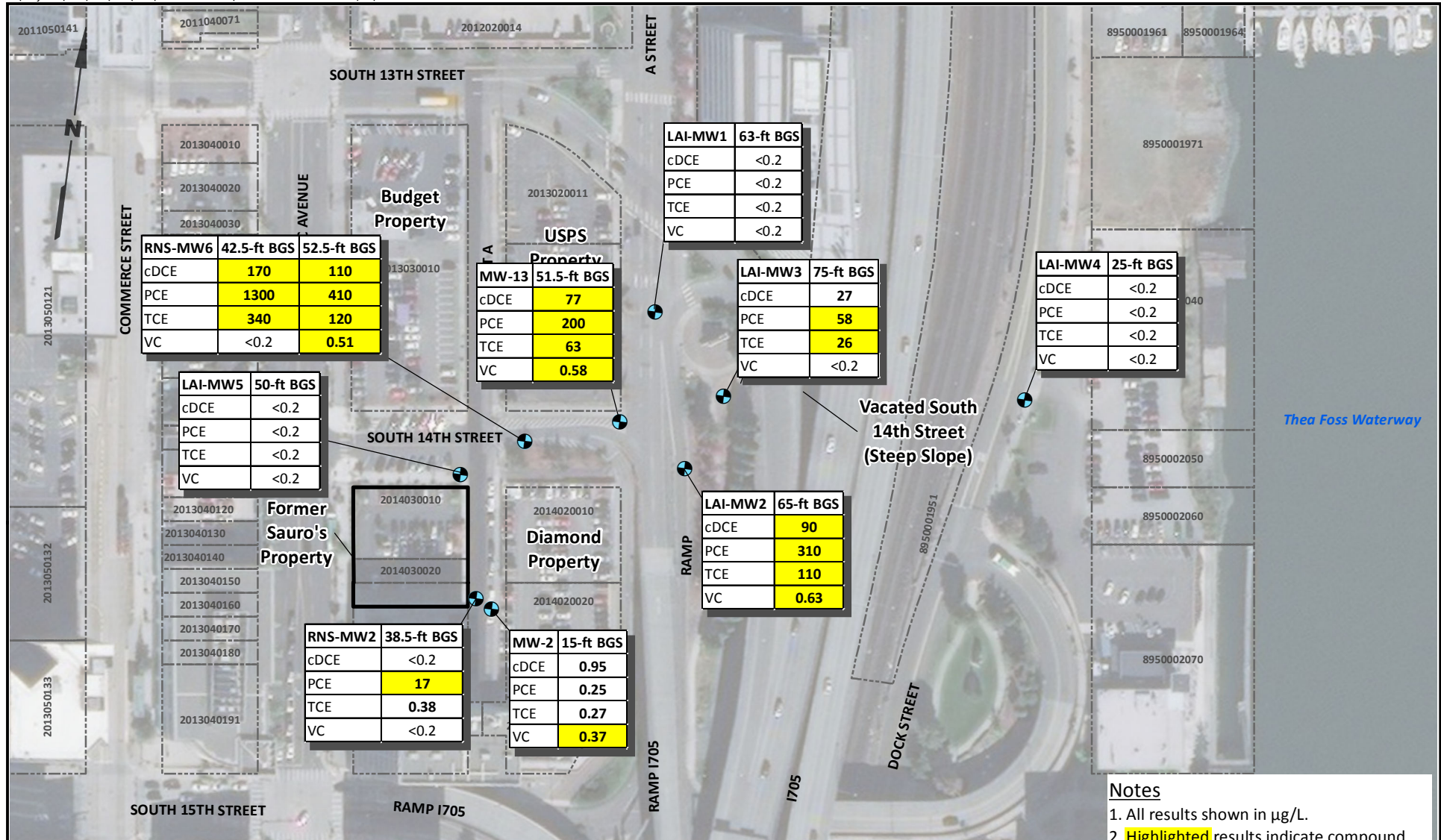
Legend

-  Long-Term Groundwater Monitoring Well (and Sampling Depth)
-  Other Existing Monitoring Well
-  Subject Property
-  Tax Parcels with Parcel ID



Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



Legend

- Long-Term Groundwater Monitoring Well (and Sampling Depth)
- Subject Property
- Tax Parcels with Parcel ID

Scale in Feet: 0, 150, 300

Notes

- All results shown in µg/L.
- Highlighted results indicate compound detected above cleanup level.
- Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

**Table 1
Sample Matrix
Sauro's Cleanerama
Tacoma, Washington**

Location	VOC Sampling Depth (ft)	VOC Sampling Method	MNA Parameters Sampling Depth (ft)	MNA Parameters Sampling Method
LAI-MW1	63	PDB	63	WAT
LAI-MW2	65	PDB	65	WAT
LAI-MW3	75	PDB	75	WAT
LAI-MW4	25	PDB	25	WAT
LAI-MW5	50	PDB	50	WAT
MW2-PP	15	PP	15	PP
MW13	51.5	PDB	51.5	WAT
RNS-MW2	38.5	PDB	38.5	WAT
RNS-MW6 ^(a)	42.5 and 52.5	PDB	47.5	WAT

Note:

(a) For RNS-MW6, where there are two VOC sampling depths, the MNA sampling depth is the mid-point between the two VOC sampling depths.

Abbreviations/Acronyms:

- ft = feet
- MNA = monitored natural attenuation
- PDB = passive diffusion bag
- PP = peristaltic pump with dedicated tubing
- VOC = volatile organic compound
- WAT = (dedicated) Waterra foot valve (with dedicated 5/8-inch HDPE tubing)

Table 2
Sampling Laboratory and Field Parameter Details
Sauro's Cleanerama
Tacoma, Washington

Groundwater Analytical Parameters	EPA Analytical Method	Practical Quantitation Limit	Preservation	Maximum Holding Time (Days)
Volatile Organic Compounds				
Tetrachloroethene	8260C	0.2 µg/L	Add HCl to pH<2; Store cool at 6°C	14
Trichloroethene	8260C	0.2 µg/L	Add HCl to pH<2; Store cool at 6°C	14
cis-1,2-Dichloroethene	8260C	0.2 µg/L	Add HCl to pH<2; Store cool at 6°C	14
Vinyl Chloride	8260C	0.2 µg/L	Add HCl to pH<2; Store cool at 6°C	14
Monitored Natural Attenuation				
Chloride	SM 4500-CL-E	0.90 mg/L	Store cool at 6°C	28
Nitrate (NO ₃) (Total) as N	353.2	0.2 mg/L ^(a)	Store cool at 6°C	48 hours
Nitrite (NO ₂) (Total) as N	353.2	0.4 mg/L ^(a)	Store cool at 6°C	48 hours
Total Organic Carbon	SM 5310B	1.00 mg/L	Add 2mL 9N H2SO4 pH<2; Store at 6°C	28
Sulfate (SO ₄) (Total)	SM 4500-SO ₄ E	1.2 mg/L	Store cool at 6°C	28
Sulfide (SO ₂) (Total)	SM 4500-S2 D	0.050 mg/L	Store cool at 6°C	7
AMEE	RSK 175	0.0050 mg/L	Store cool at 6°C	14

Groundwater Field Parameters	Data Collection Method	Instrument	Units
Monitored Natural Attenuation			
Conductivity	Field meter	YSI ^(b)	µS/cm
Dissolved Oxygen	Field meter	YSI	mg/L
Oxidation Reduction Potential	Field meter	YSI	units +/- mV
pH	Field meter	YSI	unitless
Temperature	Field meter	YSI	(°C)
Ferrous Iron (Fe ²⁺)	Field meter	Hach® Kit	mg/L
Turbidity	Field meter	Turbidity Meter	NTU
Water Level	Field meter	Water Level Indicator	0.01 ft

Notes:

- (a) Reporting limits for nitrate and nitrite were raised prior to the July 2016 sampling event due to laboratory capabilities.
- (b) YSI shall be recalibrated daily.

Abbreviations/Acronyms:

AMEE = acetylene, methane, ethane, and ethene	mg/L = milligrams per liter
°C = degrees Celsius	mL = millimeters
EPA = U.S. Environmental Protection Agency	mV = millivolts
ft = foot	µS/cm = microSiemens per centimeter
µg/L = micrograms per liter	NTU = nephelometric turbidity units

Table 3
Constituents of Concern Groundwater Analytical Results
Former Sauro's Cleanerama Site
Tacoma, Washington

Analyte	Groundwater MTCA Method A CUL or Federal/State MCL (µg/L)	Sample Location, Sample Date, Laboratory Sample ID, Sample Type										
		LAI-MW1	LAI-MW2	LAI-MW3	LAI-MW4	LAI-MW4	LAI-MW5	MW2	MW13	RNS-MW2	RNS-MW6-42.5	RNS-MW6-52.5
		2/8/2018 580-74987-1 N	2/8/2018 580-74987-2 N	2/8/2018 580-74987-3 N	2/8/2018 580-74987-11 N	2/8/2018 580-74987-4 FD	2/8/2018 580-74987-5 N	2/8/2018 580-74987-6 N	2/8/2018 580-74987-7 N	2/8/2018 580-74987-8 N	2/8/2018 580-74987-9 N	2/8/2018 580-74987-10 N
Volatile Organic Compounds (µg/L; SW-846 8260C)												
cis-1,2-Dichloroethene	70 (a)	0.20 U	90	27	0.20 U	0.20 U	0.20 U	0.95	77	0.20 U	170	110
Tetrachloroethene	5	0.20 U	310	58	0.20 U	0.20 U	0.20 U	0.25	200	17	1300	410
Trichloroethene	5	0.20 U	110	26	0.20 U	0.20 U	0.20 U	0.27	63	0.38	340	120
Vinyl Chloride	0.2	0.20 U	0.63	0.20 U	0.20 U	0.20 U	0.20 U	0.37	0.58	0.20 U	0.20 U	0.51

Notes:

Bold = detected analyte

(a) Cis-1,2-Dichloroethene does not have a MTCA Method A CUL for groundwater; therefore, the Federal/State primary MCL value of 70 µg/L is used as the CUL.

Green highlighting = compound detected above cleanup criteria.

U = The compound was not detected at the reported concentration.

Abbreviations:

µg/L = micrograms per liter

CUL = cleanup level

FD = field duplicate

ID = identification

MCL = maximum contaminant levels

MTCA = Model Toxics Control Act

N = primary sample

Table 4
Monitored Natural Attenuation Parameters
Former Sauro's Cleanerama Site
Tacoma, Washington

Analyte	Sample Location, Sample Date, Laboratory Sample ID, Sample Type									
	LAI-MW1 2/8/2018 580-74987-1 N	LAI-MW2 2/8/2018 580-74987-2 N	LAI-MW3 2/8/2018 580-74987-3 N	LAI-MW4 2/8/2018 580-74987-11 N	LAI-MW4 2/8/2018 580-74987-4 FD	LAI-MW5 2/8/2018 580-74987-5 N	MW2 2/8/2018 580-74987-6 N	MW13 2/8/2018 580-74987-7 N	RNS-MW2 2/8/2018 580-74987-8 N	RNS-MW6-52.5 2/8/2018 580-74987-10 N
Natural Attenuation Parameters (mg/L; EPA 300.0/SM 4500-S2-D/SM 5310B)										
Chloride	47	12	20	33	32	26	70	13	67	26
Nitrogen, Nitrate (as N)	1.5	0.20 U	0.65	0.20 U	0.20 U	0.20 U	0.59	0.79	3.0	0.20 U
Nitrogen, Nitrite	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Sulfate	20	18	22	1.2 U	1.2 U	1.2 U	28	31	26	28
Total Carbon	1.9	1.7	2.3	4.3	4.6	9.3	3.3	2.4	1.2	2.2
Dissolved Gasses (mg/L; RSK-175)										
Acetylene	0.0050 U	0.0050 U	0.0050 U	0.0050 UJ	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Ethane	0.0050 U	0.0050 U	0.0050 U	0.0050 UJ	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.010
Ethene	0.0050 U	0.0050 U	0.0050 U	0.0050 UJ	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Methane	0.0050 U	0.011	0.0050 U	4.6 J	4.4	9.5	0.64	0.0095	0.0050 U	0.062
Sulfide, Total	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.50 U	0.050 U	0.050 U
Field Parameters										
Dissolved Oxygen (mg/L)	3.13	7.28	2.73	3.82	3.79	2.11	NM	2.91	4.73	4.04
Oxidation Reduction Potential (mV)	-68.7	-60.3	-46.1	-36.2	-34.9	-148.6	NM	-40.0	-21.2	-49.5
Iron (mg/L)	1	1.5	0.5	1.5	1.5	2	1	0.5	1	1

Notes:

Bold text indicates detected analyte.

U = The compound was not detected at the reported concentration.

Abbreviations:

-- = not analyzed

EPA = US Environmental Protection Agency

FD = field duplicate

ID = identification

mg/L = milligrams per liter

mV = millivolt

N = primary sample

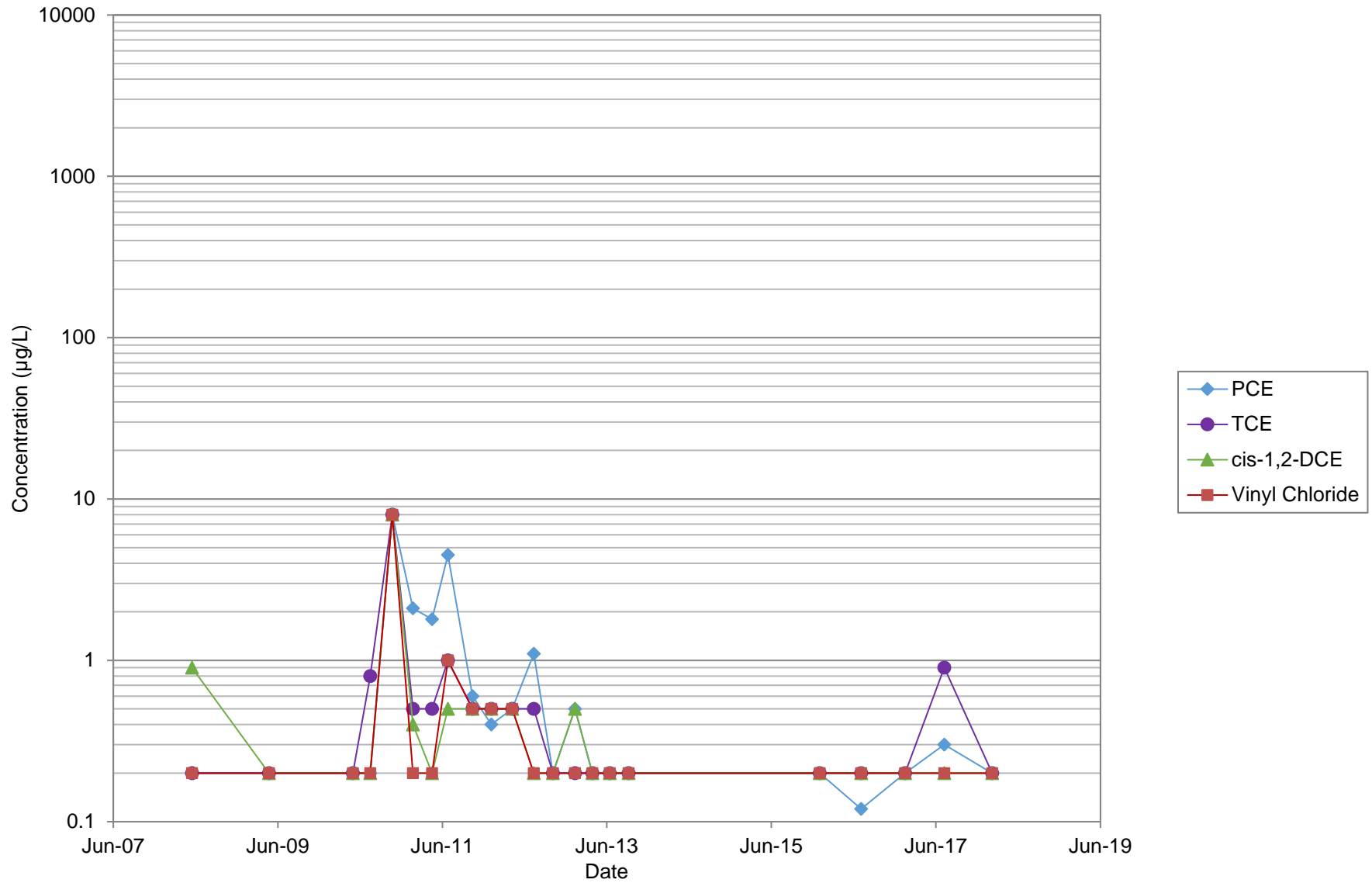
NM = not measured

Constituents of Concern Concentration Time Series Plots

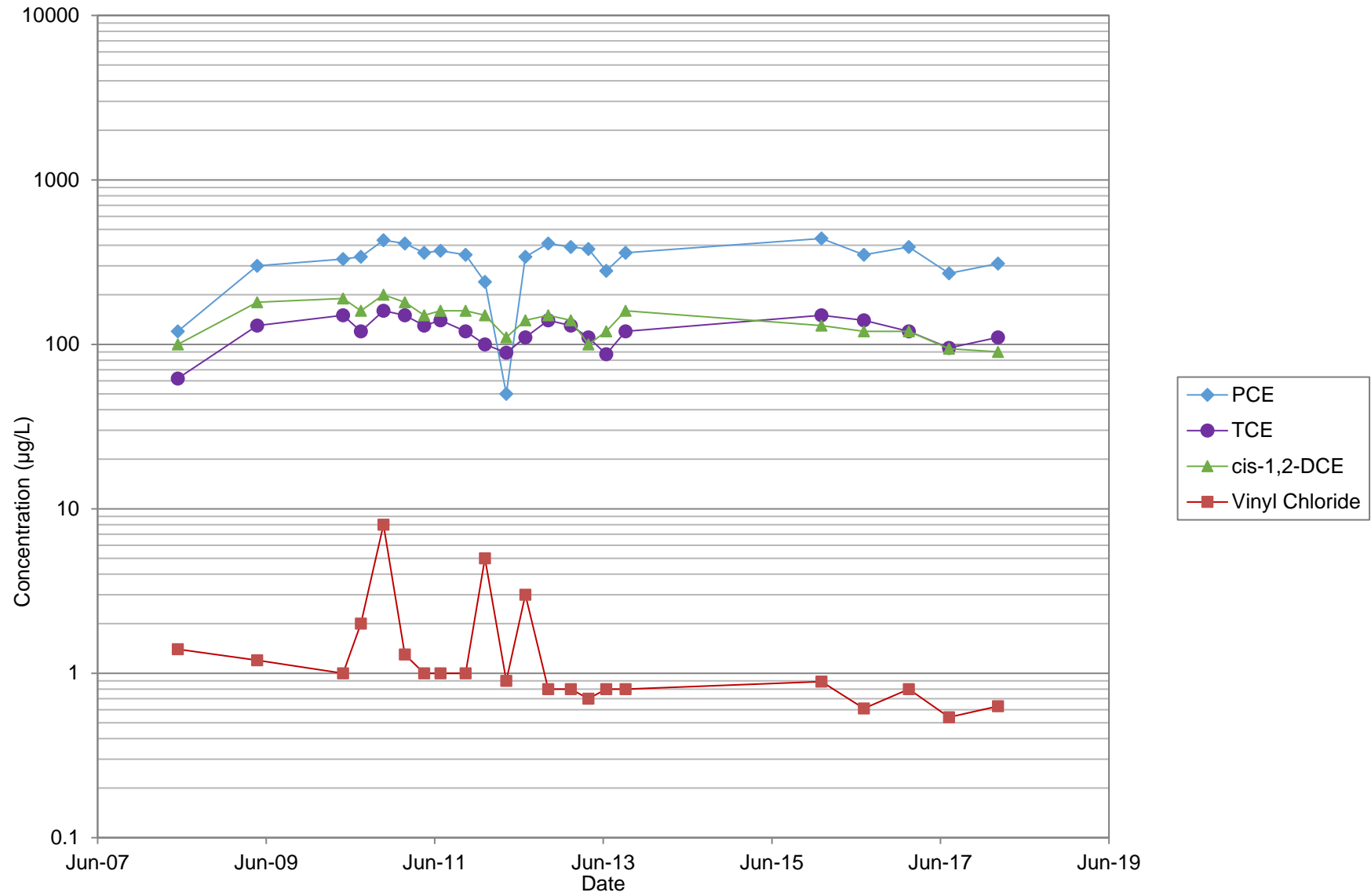
Note

1. The analytical laboratory erroneously reported down to the method detection limit in January and July 2016.

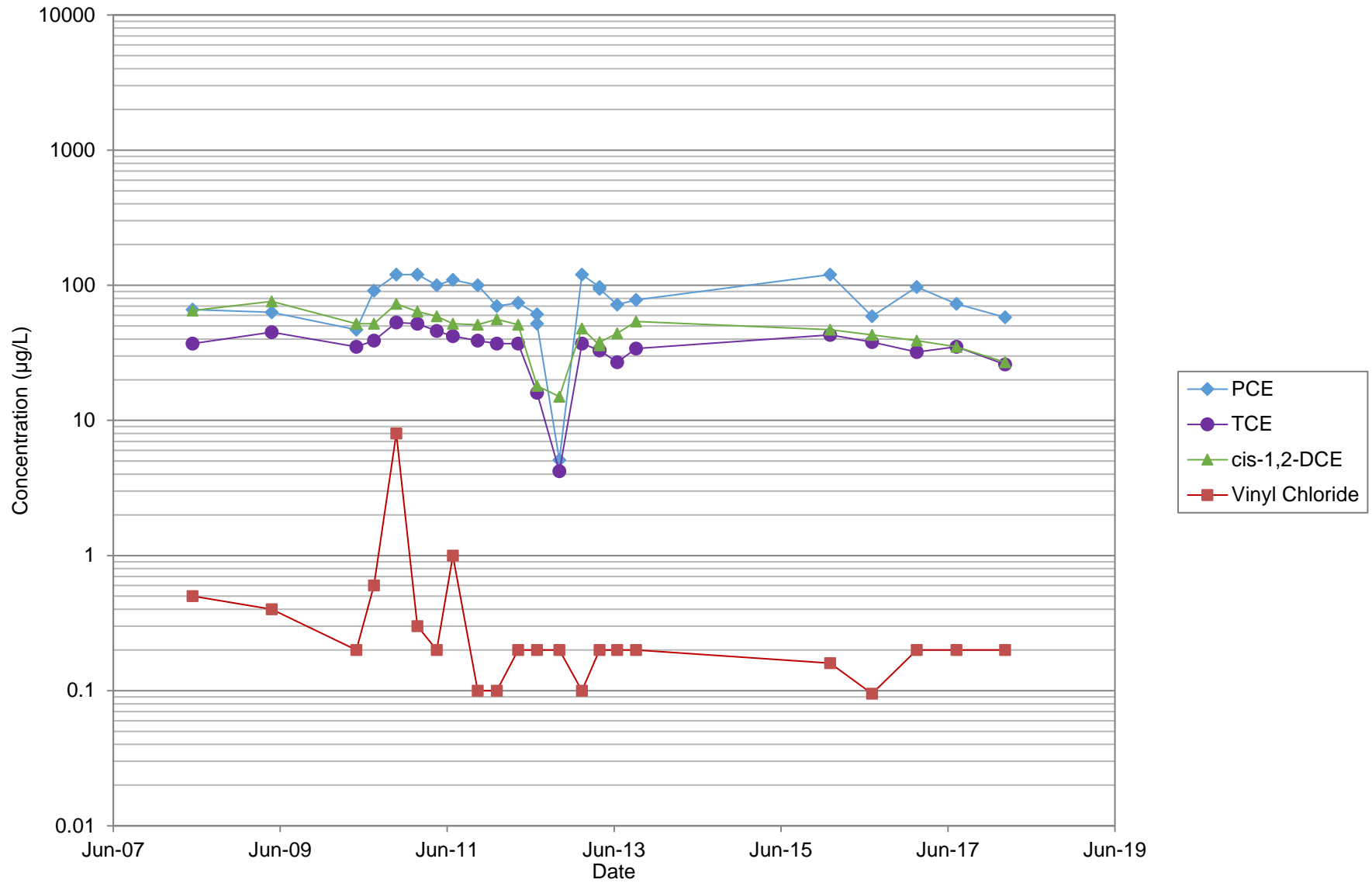
LAI-MW1



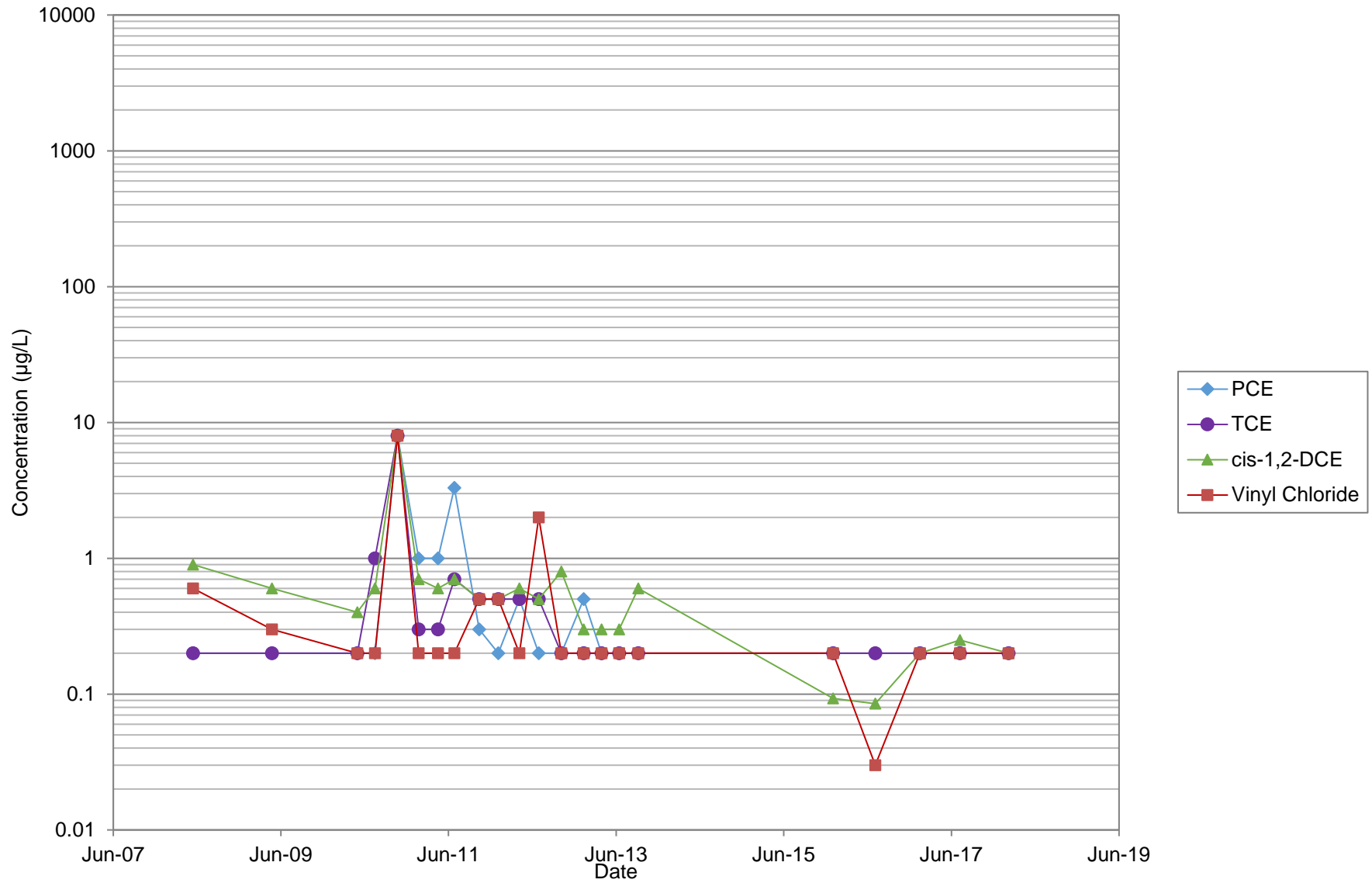
LAI-MW2



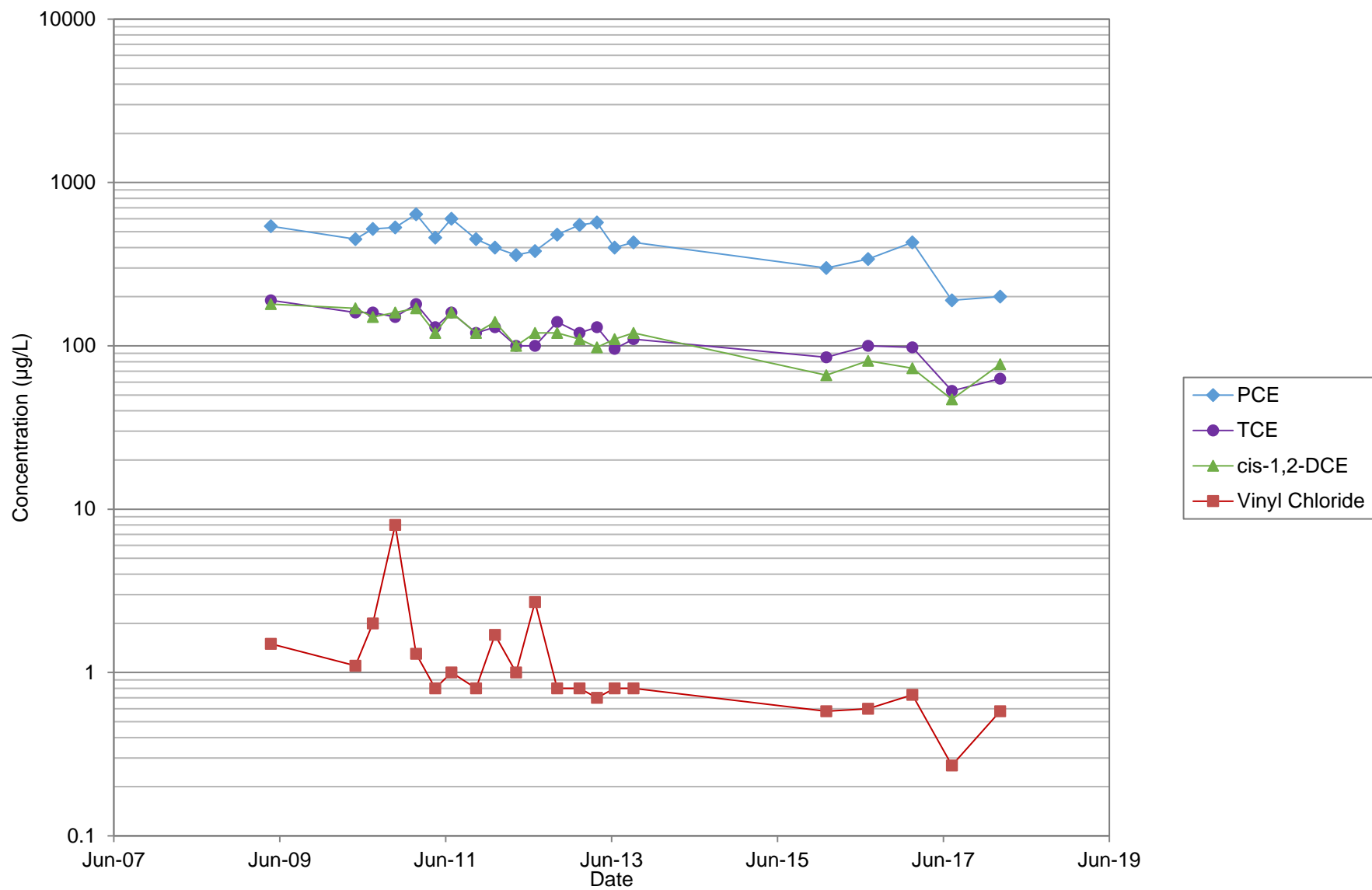
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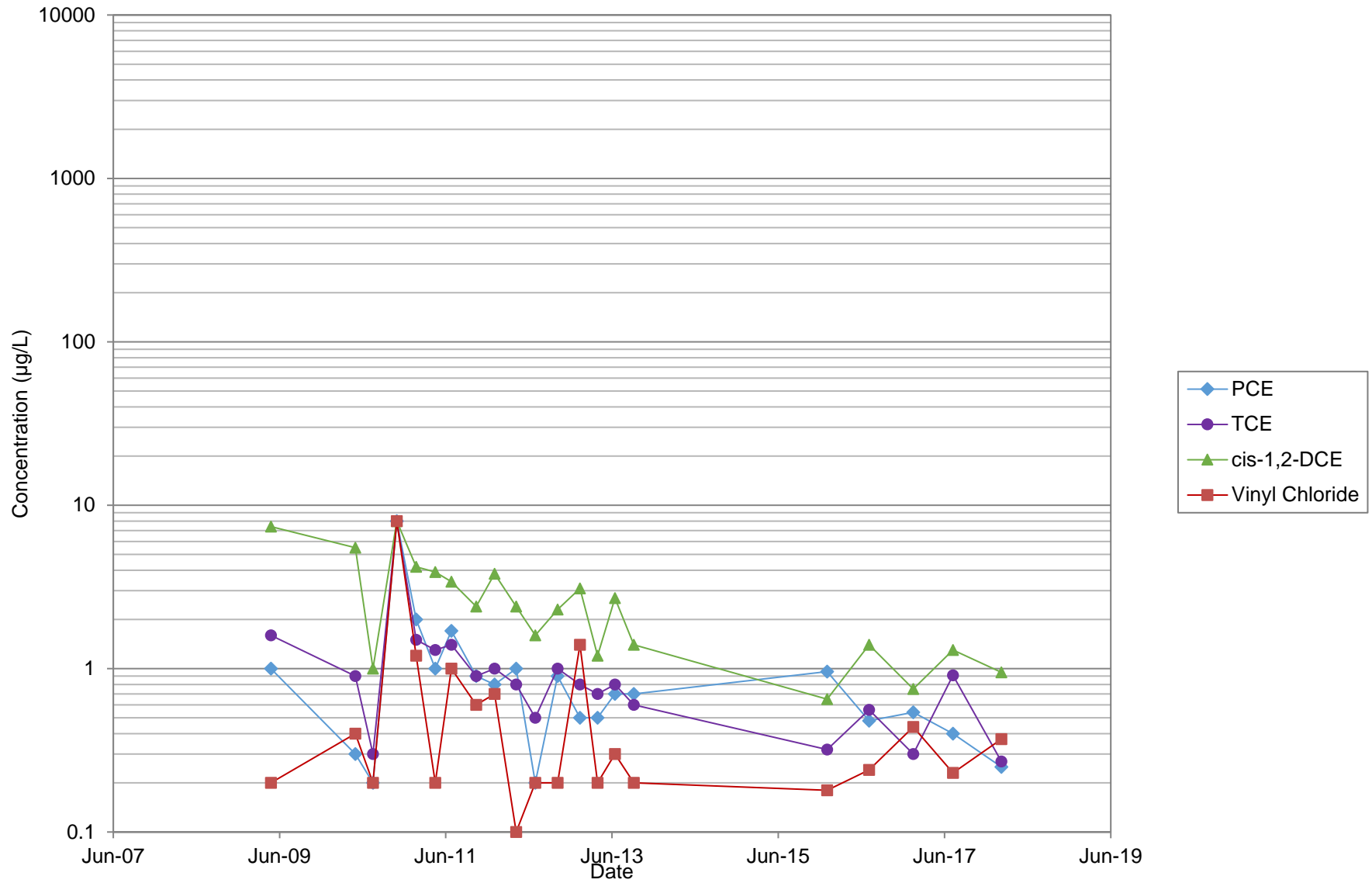
LAI-MW4



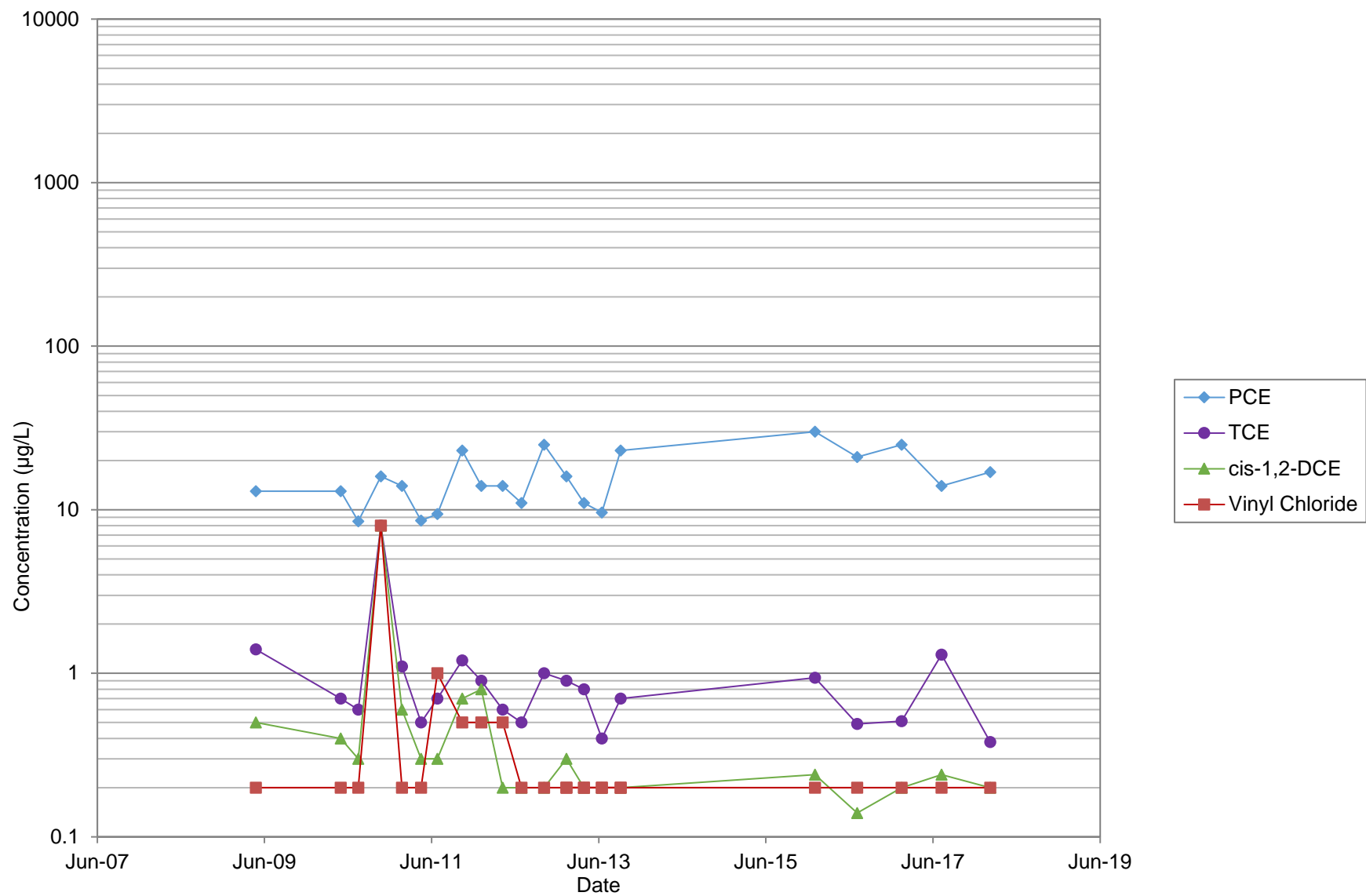
MW13



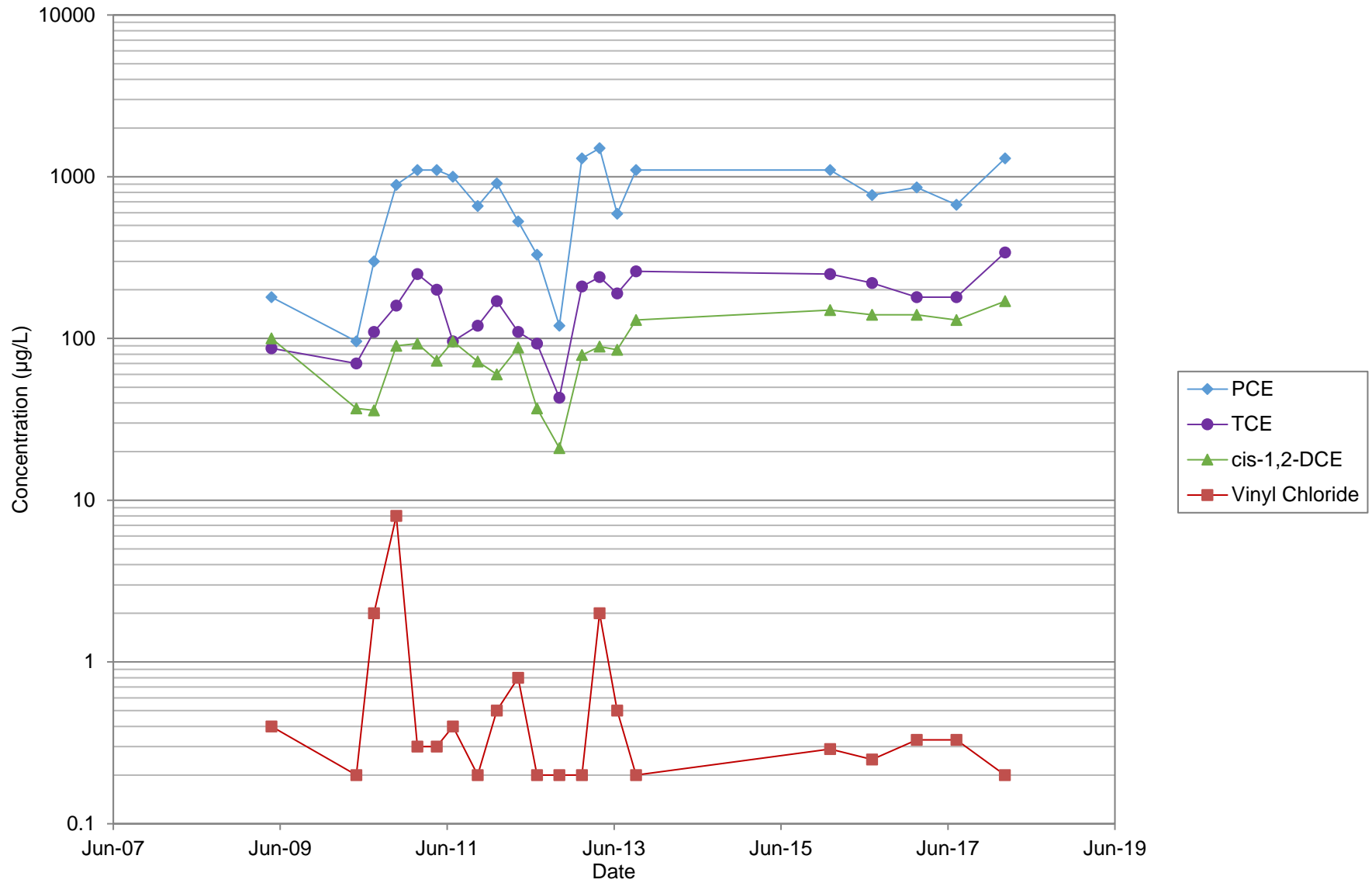
MW2



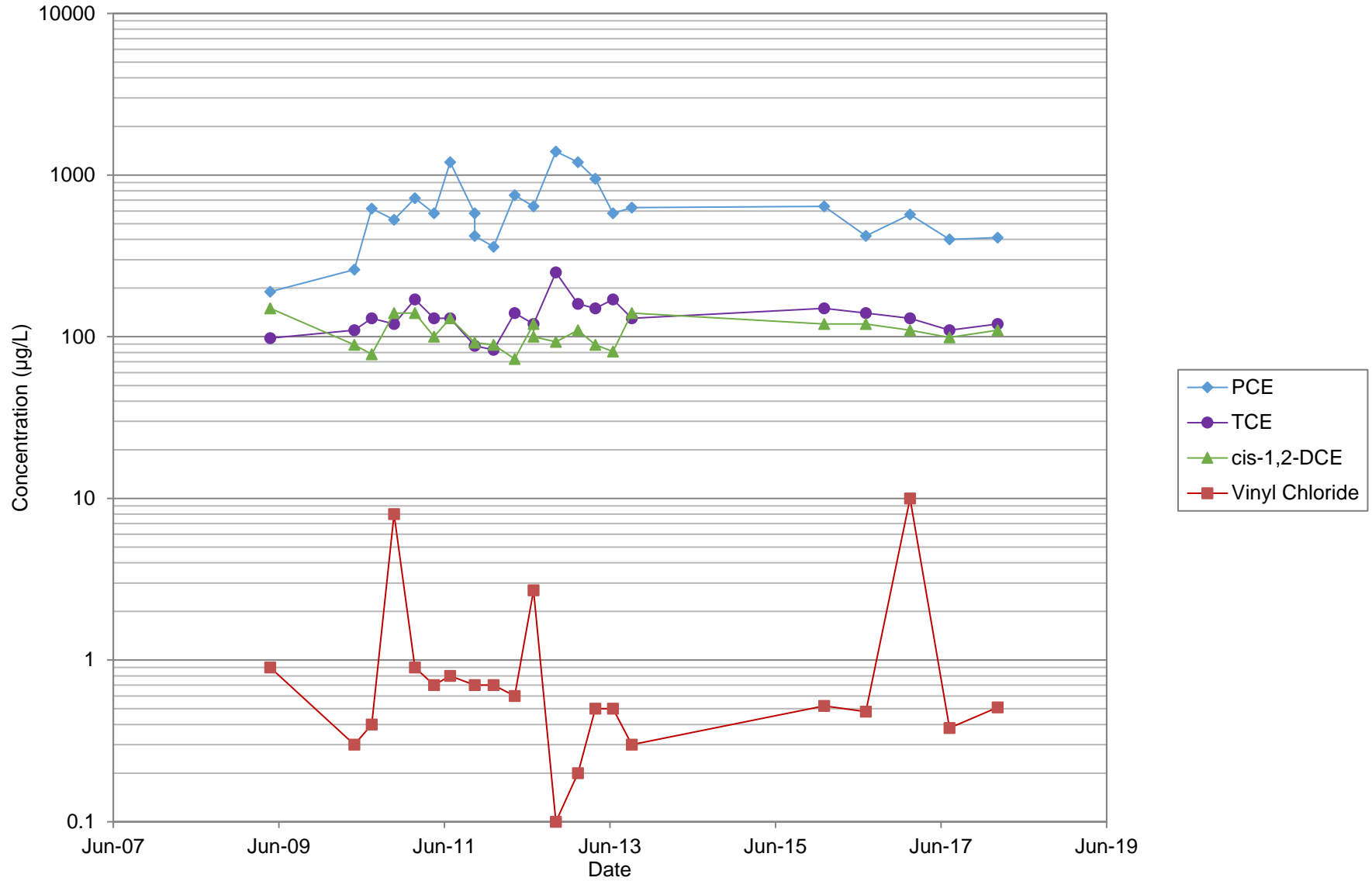
RNS-MW2



RNS-MW6-42.5



RNS-MW6-52.5



Laboratory Data Package

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-74987-1
Client Project/Site: Sauro's

For:
Landau & Associates, Inc.
2107 South C Street
Tacoma, Washington 98402

Attn: Sierra Mott



Authorized for release by:
2/23/2018 3:40:18 PM

Sheri Cruz, Project Manager I
(253)922-2310
sheri.cruz@testamericainc.com

LINKS

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results through
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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Job ID: 580-74987-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative 580-74987-1

Comments

No additional comments.

Receipt

The samples were received on 2/9/2018 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.7° C and 2.1° C.

GC/MS VOA

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: LAI-MW2-20180208 (580-74987-2), LAI-MW3-20180208 (580-74987-3), MW13-20180208 (580-74987-7), RNS-MW6-42.5-20180208 (580-74987-9) and RNS-MW6-52.5-20180208 (580-74987-10). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples were reanalyzed due to carryover in the initial batch. RNS-MW2-20180208 (580-74987-8) and Dup1-20180208 (580-74987-11)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA

Method(s) RSK-175: The following volatile sample was analyzed with significant headspace in the sample container(s): Dup1-20180208 (580-74987-11). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method(s) SM 4500 S2 D: The following samples were diluted due to sample matrix interference and turbidity: MW13-20180208 (580-74987-7). Elevated reporting limits (RLs) are provided. 4500S2D Batch 280-404580

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-74987-1	LAI-MW1-20180208	Water	02/08/18 11:20	02/09/18 08:30
580-74987-2	LAI-MW2-20180208	Water	02/08/18 10:10	02/09/18 08:30
580-74987-3	LAI-MW3-20180208	Water	02/08/18 12:35	02/09/18 08:30
580-74987-4	LAI-MW4-20180208	Water	02/08/18 08:50	02/09/18 08:30
580-74987-5	LAI-MW5-20180208	Water	02/08/18 14:55	02/09/18 08:30
580-74987-6	MW2-20180208	Water	02/08/18 16:05	02/09/18 08:30
580-74987-7	MW13-20180208	Water	02/08/18 13:45	02/09/18 08:30
580-74987-8	RNS-MW2-20180208	Water	02/08/18 16:25	02/09/18 08:30
580-74987-9	RNS-MW6-42.5-20180208	Water	02/08/18 17:00	02/09/18 08:30
580-74987-10	RNS-MW6-52.5-20180208	Water	02/08/18 17:40	02/09/18 08:30
580-74987-11	Dup1-20180208	Water	02/08/18 08:54	02/09/18 08:30
580-74987-12	TripBlank-20180208	Water	02/08/18 00:01	02/09/18 08:30



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____

Chain-of-Custody Record

Date 2/8/18
Page 1 of 1

Project Name Sauvo's Project No. 094048, 100.101

Project Location/Event Tacoma, WA / Feb 2017

Sampler's Name Raquel Burotis / Katie Gauglitz

Project Contact Sienna Mott

Send Results To Dani Jorgensen, Sienna Mott

Testing Parameters: VOC (methanol 500.0), Sulfate (300.0), Nitrate (300.0), TRC (53108), Sulfide (4500 SP2), AMEE (KSK 175), Chloride (300.0)

Loc: **580 74987**

Turnaround Time: Standard, Accelerated

Sample I.D.	Date	Time	Matrix	No. of Containers	VOC (methanol 500.0)	Sulfate (300.0)	Nitrate (300.0)	TRC (53108)	Sulfide (4500 SP2)	AMEE (KSK 175)	Chloride (300.0)	Observations/Comments
Trip B Trip Blanks	<u>2/8/18</u>		<u>H2O</u>	<u>3</u>	X							
LAI-MW1-20180208		<u>11:20</u>		<u>9</u>	X	X	X	X	X	X	X	<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion NWTPH-Dx - run acid wash silica gel cleanup Analyze for EPH if no specific product identified VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt <input type="checkbox"/> Dissolved metal water samples field filtered Other <u>LAI-MW5-20180208 time: 14:55</u> <u>MW13-20180208 time: 17:45</u>
LAI-MW2-20180208		<u>10:10</u>		<u>9</u>	X	X	X	X	X	X	X	
LAI-MW3-20180208		<u>12:35</u>		<u>9</u>	X	X	X	X	X	X	X	
LAI-MW4-20180208		<u>8:50</u>		<u>9</u>	X	X	X	X	X	X	X	
LAI-MW5-20180208		<u>14:55</u>		<u>9</u>	X	X	X	X	X	X	X	
MW2-20180208		<u>10:05</u>		<u>9</u>	X	X	X	X	X	X	X	
MW13-20180208		<u>13:45</u>		<u>9</u>	X	X	X	X	X	X	X	
RNS-MW2-20180208		<u>16:25</u>		<u>9</u>	X	X	X	X	X	X	X	
RNS-MW6-42.5-20180208		<u>17:00</u>		<u>3</u>	X	X	X	X	X	X	X	
RNS-MW6-52.5-20180208		<u>17:40</u>		<u>9</u>	X	X	X	X	X	X	X	
Dup 1-20180208		<u>8:54</u>		<u>9</u>	X	X	X	X	X	X	X	
Trip Blank-20180208			<u>H2O</u>	<u>3</u>	X							

Therm. ID A2 Cor 21 Unc 3.0
Cooler Dsc LB @Lab _____
Wet/Packs Packing Bub
Custody Seal: Yes ___ No ___

580-74987 Chain of Custody

Special Shipment/Handling or Storage Requirements COOLERS w/ ICE Method of Shipment drop off

Relinquished by Signature <u>Raquel Burotis</u> Printed Name <u>Raquel Burotis</u> Company <u>LAI</u> Date <u>2/9/18</u> Time <u>8:30</u>	Received by Signature <u>Ken Hobbs</u> Printed Name <u>Ken Hobbs</u> Company <u>TASEA</u> Date <u>2-9-18</u> Time <u>8:30</u>	Received by Signature _____ Printed Name _____ Company _____ Date _____ Time _____
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Therm. ID A2 Cor 17 Unc 2.6
Cooler Dsc LB @Lab _____
Wet/Packs Packing Bub
Custody Seal: Yes ___ No X

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Carrier Tracking Note(s):	COC No:					
Client Contact: Shipping/Receiving		Cruz, Sheri L		580-53089.1					
Company: TestAmerica Laboratories, Inc.		E-Mail: sheri.cruz@testamericainc.com	State of Origin: Washington	Page: Page 1 of 2					
Address: 4955 Yarrow Street, City: Arvada State: Zn CO., 80002		Accreditations Required (See note): State Program - Washington							
Phone: 303-736-0100(Tel) 303-431-7171(Fax)		Job #: 580-74987-1							
Email: SAURO'S - Groundwater Monitoring		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2SO3 S - H2SO4 G - Amchlor H - Ascorbic Acid T - TSP Dodecahydrate I - Ice J - DI Water U - Acetone V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:							
Project #: 58009425		Analysis Requested							
SSOW#:		Total Number of Containers							
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, A=air) (BT=Trasur, AA=AI)	Field Filtered Sample (Yes or No)	Performs MS/MSD (Yes or No)	RSK_175/ (MOD) Local Method	SM4500_S2_D/ Sulfide	Special Instructions/Note:
LAI-MW1-20180208 (580-74987-1)	2/8/18	11:20 Pacific	Water	Water	X	X	X	X	4
LAI-MW2-20180208 (580-74987-2)	2/8/18	10:10 Pacific	Water	Water	X	X	X	X	4
LAI-MW3-20180208 (580-74987-3)	2/8/18	12:35 Pacific	Water	Water	X	X	X	X	4
LAI-MW4-20180208 (580-74987-4)	2/8/18	08:50 Pacific	Water	Water	X	X	X	X	4
LAI-MW5-20180208 (580-74987-5)	2/8/18	14:55 Pacific	Water	Water	X	X	X	X	4
MW2-20180208 (580-74987-6)	2/8/18	16:05 Pacific	Water	Water	X	X	X	X	4
MW13-20180208 (580-74987-7)	2/8/18	13:45 Pacific	Water	Water	X	X	X	X	4
RNS-MW2-20180208 (580-74987-8)	2/8/18	16:25 Pacific	Water	Water	X	X	X	X	4
RNS-MW6-52.5-20180208 (580-74987-10)	2/8/18	17:40 Pacific	Water	Water	X	X	X	X	4

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *Tommy Holm* Date: 2/9/18 13:10
 Relinquished by: *Yasea* Date: 2/10/18 08:40
 Relinquished by: _____ Date: _____
 Relinquished by: _____ Date: _____
 Custody Seals Intact: Yes No
 Custody Seal No.: 1-40C to 1FR #5 Transferred BB 2/10/18

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Method of Shipment: _____
 Received by: *Yasea* Date: 2/10/18 08:40 Company: *TA-DE-N*
 Received by: _____ Date: _____ Company: _____
 Received by: _____ Date: _____ Company: _____
 Cooler Temperature(s) °C and Other Remarks: 1-40C to 1FR #5 Transferred BB 2/10/18



Login Sample Receipt Checklist

Client: Landau & Associates, Inc.

Job Number: 580-74987-1

Login Number: 74987

List Source: TestAmerica Seattle

List Number: 1

Creator: Hobbs, Kenneth F

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Landau & Associates, Inc.

Job Number: 580-74987-1

Login Number: 74987

List Number: 2

Creator: Burtness, Benjamin W

List Source: TestAmerica Denver

List Creation: 02/10/18 11:24 AM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: LAI-MW1-20180208

Lab Sample ID: 580-74987-1

Date Collected: 02/08/18 11:20

Matrix: Water

Date Received: 02/09/18 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			02/14/18 20:18	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			02/14/18 20:18	1
Trichloroethene	ND		0.20		ug/L			02/14/18 20:18	1
Tetrachloroethene	ND		0.20		ug/L			02/14/18 20:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	103		74 - 118		02/14/18 20:18	1
Toluene-d8 (Surr)	103		75 - 125		02/14/18 20:18	1
1,2-Dichloroethane-d4 (Surr)	105		46 - 150		02/14/18 20:18	1
4-Bromofluorobenzene (Surr)	101		81 - 120		02/14/18 20:18	1
Dibromofluoromethane (Surr)	103		42 - 132		02/14/18 20:18	1

Client Sample ID: LAI-MW2-20180208

Lab Sample ID: 580-74987-2

Date Collected: 02/08/18 10:10

Matrix: Water

Date Received: 02/09/18 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.63		0.20		ug/L			02/14/18 20:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	101		74 - 118		02/14/18 20:45	1
Toluene-d8 (Surr)	102		75 - 125		02/14/18 20:45	1
1,2-Dichloroethane-d4 (Surr)	104		46 - 150		02/14/18 20:45	1
4-Bromofluorobenzene (Surr)	99		81 - 120		02/14/18 20:45	1
Dibromofluoromethane (Surr)	102		42 - 132		02/14/18 20:45	1

Client Sample ID: LAI-MW3-20180208

Lab Sample ID: 580-74987-3

Date Collected: 02/08/18 12:35

Matrix: Water

Date Received: 02/09/18 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			02/14/18 21:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	102		74 - 118		02/14/18 21:11	1
Toluene-d8 (Surr)	102		75 - 125		02/14/18 21:11	1
1,2-Dichloroethane-d4 (Surr)	105		46 - 150		02/14/18 21:11	1
4-Bromofluorobenzene (Surr)	100		81 - 120		02/14/18 21:11	1
Dibromofluoromethane (Surr)	104		42 - 132		02/14/18 21:11	1

Client Sample ID: LAI-MW4-20180208

Lab Sample ID: 580-74987-4

Date Collected: 02/08/18 08:50

Matrix: Water

Date Received: 02/09/18 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			02/14/18 21:38	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			02/14/18 21:38	1
Trichloroethene	ND		0.20		ug/L			02/14/18 21:38	1
Tetrachloroethene	ND		0.20		ug/L			02/14/18 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	94		74 - 118		02/14/18 21:38	1
Toluene-d8 (Surr)	103		75 - 125		02/14/18 21:38	1
1,2-Dichloroethane-d4 (Surr)	99		46 - 150		02/14/18 21:38	1

TestAmerica Seattle

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: LAI-MW4-20180208

Date Collected: 02/08/18 08:50

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		81 - 120		02/14/18 21:38	1
Dibromofluoromethane (Surr)	97		42 - 132		02/14/18 21:38	1

Client Sample ID: LAI-MW5-20180208

Date Collected: 02/08/18 14:55

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			02/14/18 22:04	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			02/14/18 22:04	1
Trichloroethene	ND		0.20		ug/L			02/14/18 22:04	1
Tetrachloroethene	ND		0.20		ug/L			02/14/18 22:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	102		74 - 118		02/14/18 22:04	1
Toluene-d8 (Surr)	102		75 - 125		02/14/18 22:04	1
1,2-Dichloroethane-d4 (Surr)	102		46 - 150		02/14/18 22:04	1
4-Bromofluorobenzene (Surr)	102		81 - 120		02/14/18 22:04	1
Dibromofluoromethane (Surr)	100		42 - 132		02/14/18 22:04	1

Client Sample ID: MW2-20180208

Date Collected: 02/08/18 16:05

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.37		0.20		ug/L			02/14/18 22:31	1
cis-1,2-Dichloroethene	0.95		0.20		ug/L			02/14/18 22:31	1
Trichloroethene	0.27		0.20		ug/L			02/14/18 22:31	1
Tetrachloroethene	0.25		0.20		ug/L			02/14/18 22:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	101		74 - 118		02/14/18 22:31	1
Toluene-d8 (Surr)	102		75 - 125		02/14/18 22:31	1
1,2-Dichloroethane-d4 (Surr)	104		46 - 150		02/14/18 22:31	1
4-Bromofluorobenzene (Surr)	102		81 - 120		02/14/18 22:31	1
Dibromofluoromethane (Surr)	101		42 - 132		02/14/18 22:31	1

Client Sample ID: MW13-20180208

Date Collected: 02/08/18 13:45

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.58		0.20		ug/L			02/14/18 22:57	1
cis-1,2-Dichloroethene	77		0.20		ug/L			02/14/18 22:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	101		74 - 118		02/14/18 22:57	1
Toluene-d8 (Surr)	101		75 - 125		02/14/18 22:57	1
1,2-Dichloroethane-d4 (Surr)	104		46 - 150		02/14/18 22:57	1
4-Bromofluorobenzene (Surr)	100		81 - 120		02/14/18 22:57	1
Dibromofluoromethane (Surr)	102		42 - 132		02/14/18 22:57	1

TestAmerica Seattle

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: RNS-MW2-20180208

Date Collected: 02/08/18 16:25

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			02/14/18 23:24	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			02/14/18 23:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	101		74 - 118					02/14/18 23:24	1
Toluene-d8 (Surr)	101		75 - 125					02/14/18 23:24	1
1,2-Dichloroethane-d4 (Surr)	105		46 - 150					02/14/18 23:24	1
4-Bromofluorobenzene (Surr)	100		81 - 120					02/14/18 23:24	1
Dibromofluoromethane (Surr)	103		42 - 132					02/14/18 23:24	1

Client Sample ID: RNS-MW6-42.5-20180208

Date Collected: 02/08/18 17:00

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			02/14/18 23:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	99		74 - 118					02/14/18 23:50	1
Toluene-d8 (Surr)	102		75 - 125					02/14/18 23:50	1
1,2-Dichloroethane-d4 (Surr)	104		46 - 150					02/14/18 23:50	1
4-Bromofluorobenzene (Surr)	100		81 - 120					02/14/18 23:50	1
Dibromofluoromethane (Surr)	102		42 - 132					02/14/18 23:50	1

Client Sample ID: RNS-MW6-52.5-20180208

Date Collected: 02/08/18 17:40

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.51		0.20		ug/L			02/15/18 00:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	101		74 - 118					02/15/18 00:17	1
Toluene-d8 (Surr)	102		75 - 125					02/15/18 00:17	1
1,2-Dichloroethane-d4 (Surr)	103		46 - 150					02/15/18 00:17	1
4-Bromofluorobenzene (Surr)	100		81 - 120					02/15/18 00:17	1
Dibromofluoromethane (Surr)	102		42 - 132					02/15/18 00:17	1

Client Sample ID: Dup1-20180208

Date Collected: 02/08/18 08:54

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			02/15/18 00:43	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			02/15/18 00:43	1
Trichloroethene	ND		0.20		ug/L			02/15/18 00:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	97		74 - 118					02/15/18 00:43	1
Toluene-d8 (Surr)	103		75 - 125					02/15/18 00:43	1
1,2-Dichloroethane-d4 (Surr)	98		46 - 150					02/15/18 00:43	1
4-Bromofluorobenzene (Surr)	103		81 - 120					02/15/18 00:43	1
Dibromofluoromethane (Surr)	97		42 - 132					02/15/18 00:43	1

TestAmerica Seattle

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: TripBlank-20180208

Lab Sample ID: 580-74987-12

Date Collected: 02/08/18 00:01

Matrix: Water

Date Received: 02/09/18 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			02/14/18 16:47	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			02/14/18 16:47	1
Trichloroethene	ND		0.20		ug/L			02/14/18 16:47	1
Tetrachloroethene	ND		0.20		ug/L			02/14/18 16:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	105		74 - 118		02/14/18 16:47	1
Toluene-d8 (Surr)	102		75 - 125		02/14/18 16:47	1
1,2-Dichloroethane-d4 (Surr)	96		46 - 150		02/14/18 16:47	1
4-Bromofluorobenzene (Surr)	100		81 - 120		02/14/18 16:47	1
Dibromofluoromethane (Surr)	100		42 - 132		02/14/18 16:47	1

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: 8260C - Volatile Organic Compounds (GC/MS) - DL

Client Sample ID: LAI-MW2-20180208

Date Collected: 02/08/18 10:10

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	90		4.0		ug/L			02/16/18 19:15	20
Trichloroethene	110		4.0		ug/L			02/16/18 19:15	20
Tetrachloroethene	310		4.0		ug/L			02/16/18 19:15	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	100		74 - 118					02/16/18 19:15	20
Toluene-d8 (Surr)	101		75 - 125					02/16/18 19:15	20
1,2-Dichloroethane-d4 (Surr)	105		46 - 150					02/16/18 19:15	20
4-Bromofluorobenzene (Surr)	99		81 - 120					02/16/18 19:15	20
Dibromofluoromethane (Surr)	103		42 - 132					02/16/18 19:15	20

Client Sample ID: LAI-MW3-20180208

Date Collected: 02/08/18 12:35

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	27		2.0		ug/L			02/16/18 19:42	10
Trichloroethene	26		2.0		ug/L			02/16/18 19:42	10
Tetrachloroethene	58		2.0		ug/L			02/16/18 19:42	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	102		74 - 118					02/16/18 19:42	10
Toluene-d8 (Surr)	102		75 - 125					02/16/18 19:42	10
1,2-Dichloroethane-d4 (Surr)	102		46 - 150					02/16/18 19:42	10
4-Bromofluorobenzene (Surr)	101		81 - 120					02/16/18 19:42	10
Dibromofluoromethane (Surr)	102		42 - 132					02/16/18 19:42	10

Client Sample ID: MW13-20180208

Date Collected: 02/08/18 13:45

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	63		4.0		ug/L			02/16/18 20:08	20
Tetrachloroethene	200		4.0		ug/L			02/16/18 20:08	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	102		74 - 118					02/16/18 20:08	20
Toluene-d8 (Surr)	101		75 - 125					02/16/18 20:08	20
1,2-Dichloroethane-d4 (Surr)	103		46 - 150					02/16/18 20:08	20
4-Bromofluorobenzene (Surr)	100		81 - 120					02/16/18 20:08	20
Dibromofluoromethane (Surr)	102		42 - 132					02/16/18 20:08	20

Client Sample ID: RNS-MW6-42.5-20180208

Date Collected: 02/08/18 17:00

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	170		8.0		ug/L			02/16/18 20:35	40
Trichloroethene	340		8.0		ug/L			02/16/18 20:35	40
Tetrachloroethene	1300		8.0		ug/L			02/16/18 20:35	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	104		74 - 118					02/16/18 20:35	40
Toluene-d8 (Surr)	102		75 - 125					02/16/18 20:35	40

TestAmerica Seattle

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: 8260C - Volatile Organic Compounds (GC/MS) - DL (Continued)

Client Sample ID: RNS-MW6-42.5-20180208

Date Collected: 02/08/18 17:00

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-9

Matrix: Water

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1,2-Dichloroethane-d4 (Surr)	105		46 - 150		02/16/18 20:35	40
4-Bromofluorobenzene (Surr)	99		81 - 120		02/16/18 20:35	40
Dibromofluoromethane (Surr)	103		42 - 132		02/16/18 20:35	40

Client Sample ID: RNS-MW6-52.5-20180208

Date Collected: 02/08/18 17:40

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-10

Matrix: Water

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
cis-1,2-Dichloroethene	110		4.0		ug/L			02/16/18 21:02	20
Trichloroethene	120		4.0		ug/L			02/16/18 21:02	20
Tetrachloroethene	410		4.0		ug/L			02/16/18 21:02	20

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Trifluorotoluene (Surr)	103		74 - 118		02/16/18 21:02	20
Toluene-d8 (Surr)	101		75 - 125		02/16/18 21:02	20
1,2-Dichloroethane-d4 (Surr)	105		46 - 150		02/16/18 21:02	20
4-Bromofluorobenzene (Surr)	98		81 - 120		02/16/18 21:02	20
Dibromofluoromethane (Surr)	103		42 - 132		02/16/18 21:02	20

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: 8260C - Volatile Organic Compounds (GC/MS) - RA

Client Sample ID: RNS-MW2-20180208

Date Collected: 02/08/18 16:25

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	0.38		0.20		ug/L			02/16/18 14:50	1
Tetrachloroethene	17		0.20		ug/L			02/16/18 14:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	100		74 - 118					02/16/18 14:50	1
Toluene-d8 (Surr)	101		75 - 125					02/16/18 14:50	1
1,2-Dichloroethane-d4 (Surr)	102		46 - 150					02/16/18 14:50	1
4-Bromofluorobenzene (Surr)	100		81 - 120					02/16/18 14:50	1
Dibromofluoromethane (Surr)	101		42 - 132					02/16/18 14:50	1

Client Sample ID: Dup1-20180208

Date Collected: 02/08/18 08:54

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.20		ug/L			02/16/18 15:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	96		74 - 118					02/16/18 15:16	1
Toluene-d8 (Surr)	102		75 - 125					02/16/18 15:16	1
1,2-Dichloroethane-d4 (Surr)	98		46 - 150					02/16/18 15:16	1
4-Bromofluorobenzene (Surr)	103		81 - 120					02/16/18 15:16	1
Dibromofluoromethane (Surr)	97		42 - 132					02/16/18 15:16	1

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: RSK-175 - Dissolved Gases (GC)

Client Sample ID: LAI-MW1-20180208

Date Collected: 02/08/18 11:20

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.0050		mg/L			02/21/18 00:16	1
Ethylene	ND		0.0050		mg/L			02/21/18 00:16	1
Ethane	ND		0.0050		mg/L			02/21/18 00:16	1
Acetylene	ND		0.0050		mg/L			02/21/18 00:16	1

Client Sample ID: LAI-MW2-20180208

Date Collected: 02/08/18 10:10

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.011		0.0050		mg/L			02/21/18 00:30	1
Ethylene	ND		0.0050		mg/L			02/21/18 00:30	1
Ethane	ND		0.0050		mg/L			02/21/18 00:30	1
Acetylene	ND		0.0050		mg/L			02/21/18 00:30	1

Client Sample ID: LAI-MW3-20180208

Date Collected: 02/08/18 12:35

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.0050		mg/L			02/21/18 00:44	1
Ethylene	ND		0.0050		mg/L			02/21/18 00:44	1
Ethane	ND		0.0050		mg/L			02/21/18 00:44	1
Acetylene	ND		0.0050		mg/L			02/21/18 00:44	1

Client Sample ID: LAI-MW4-20180208

Date Collected: 02/08/18 08:50

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.4		0.0050		mg/L			02/21/18 00:59	1
Ethylene	ND		0.0050		mg/L			02/21/18 00:59	1
Ethane	ND		0.0050		mg/L			02/21/18 00:59	1
Acetylene	ND		0.0050		mg/L			02/21/18 00:59	1

Client Sample ID: LAI-MW5-20180208

Date Collected: 02/08/18 14:55

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	9.5		0.0050		mg/L			02/21/18 01:13	1
Ethylene	ND		0.0050		mg/L			02/21/18 01:13	1
Ethane	ND		0.0050		mg/L			02/21/18 01:13	1
Acetylene	ND		0.0050		mg/L			02/21/18 01:13	1

Client Sample ID: MW2-20180208

Date Collected: 02/08/18 16:05

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.64		0.0050		mg/L			02/21/18 01:27	1
Ethylene	ND		0.0050		mg/L			02/21/18 01:27	1
Ethane	ND		0.0050		mg/L			02/21/18 01:27	1
Acetylene	ND		0.0050		mg/L			02/21/18 01:27	1

TestAmerica Seattle

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: RSK-175 - Dissolved Gases (GC)

Client Sample ID: MW13-20180208

Date Collected: 02/08/18 13:45

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.0095		0.0050		mg/L			02/21/18 01:55	1
Ethylene	ND		0.0050		mg/L			02/21/18 01:55	1
Ethane	ND		0.0050		mg/L			02/21/18 01:55	1
Acetylene	ND		0.0050		mg/L			02/21/18 01:55	1

Client Sample ID: RNS-MW2-20180208

Date Collected: 02/08/18 16:25

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.0050		mg/L			02/21/18 02:24	1
Ethylene	ND		0.0050		mg/L			02/21/18 02:24	1
Ethane	ND		0.0050		mg/L			02/21/18 02:24	1
Acetylene	ND		0.0050		mg/L			02/21/18 02:24	1

Client Sample ID: RNS-MW6-52.5-20180208

Date Collected: 02/08/18 17:40

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	0.062		0.0050		mg/L			02/21/18 02:38	1
Ethylene	ND		0.0050		mg/L			02/21/18 02:38	1
Ethane	0.010		0.0050		mg/L			02/21/18 02:38	1
Acetylene	ND		0.0050		mg/L			02/21/18 02:38	1

Client Sample ID: Dup1-20180208

Date Collected: 02/08/18 08:54

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4.6		0.0050		mg/L			02/21/18 02:52	1
Ethylene	ND		0.0050		mg/L			02/21/18 02:52	1
Ethane	ND		0.0050		mg/L			02/21/18 02:52	1
Acetylene	ND		0.0050		mg/L			02/21/18 02:52	1

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

General Chemistry

Client Sample ID: LAI-MW1-20180208

Date Collected: 02/08/18 11:20

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47		0.90		mg/L			02/09/18 11:26	1
Nitrite as N	ND		0.40		mg/L			02/09/18 11:26	1
Nitrate as N	1.5		0.20		mg/L			02/09/18 11:26	1
Sulfate	20		1.2		mg/L			02/09/18 11:26	1
Sulfide	ND		0.050		mg/L			02/12/18 08:19	1
Total Organic Carbon	1.9		1.0		mg/L			02/20/18 13:01	1

Client Sample ID: LAI-MW2-20180208

Date Collected: 02/08/18 10:10

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		0.90		mg/L			02/09/18 11:38	1
Nitrite as N	ND		0.40		mg/L			02/09/18 11:38	1
Nitrate as N	ND		0.20		mg/L			02/09/18 11:38	1
Sulfate	18		1.2		mg/L			02/09/18 11:38	1
Sulfide	ND		0.050		mg/L			02/12/18 08:19	1
Total Organic Carbon	1.7		1.0		mg/L			02/20/18 13:01	1

Client Sample ID: LAI-MW3-20180208

Date Collected: 02/08/18 12:35

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		0.90		mg/L			02/09/18 12:25	1
Nitrite as N	ND		0.40		mg/L			02/09/18 12:25	1
Nitrate as N	0.65		0.20		mg/L			02/09/18 12:25	1
Sulfate	22		1.2		mg/L			02/09/18 12:25	1
Sulfide	ND		0.050		mg/L			02/12/18 08:19	1
Total Organic Carbon	2.3		1.0		mg/L			02/20/18 13:01	1

Client Sample ID: LAI-MW4-20180208

Date Collected: 02/08/18 08:50

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32		0.90		mg/L			02/09/18 12:37	1
Nitrite as N	ND		0.40		mg/L			02/09/18 12:37	1
Nitrate as N	ND		0.20		mg/L			02/09/18 12:37	1
Sulfate	ND		1.2		mg/L			02/09/18 12:37	1
Sulfide	ND		0.050		mg/L			02/12/18 08:19	1
Total Organic Carbon	4.6		1.0		mg/L			02/22/18 15:55	1

Client Sample ID: LAI-MW5-20180208

Date Collected: 02/08/18 14:55

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26		0.90		mg/L			02/09/18 13:12	1
Nitrite as N	ND		0.40		mg/L			02/09/18 13:12	1
Nitrate as N	ND		0.20		mg/L			02/09/18 13:12	1
Sulfate	ND		1.2		mg/L			02/09/18 13:12	1
Sulfide	ND		0.050		mg/L			02/12/18 08:19	1
Total Organic Carbon	9.3		2.0		mg/L			02/22/18 15:55	2

TestAmerica Seattle

Client Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

General Chemistry

Client Sample ID: MW2-20180208

Date Collected: 02/08/18 16:05

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70		0.90		mg/L			02/09/18 13:24	1
Nitrite as N	ND		0.40		mg/L			02/09/18 13:24	1
Nitrate as N	0.59		0.20		mg/L			02/09/18 13:24	1
Sulfate	28		1.2		mg/L			02/09/18 13:24	1
Sulfide	ND		0.050		mg/L			02/12/18 08:19	1
Total Organic Carbon	3.3		1.0		mg/L			02/22/18 15:55	1

Client Sample ID: MW13-20180208

Date Collected: 02/08/18 13:45

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		0.90		mg/L			02/09/18 13:35	1
Nitrite as N	ND		0.40		mg/L			02/09/18 13:35	1
Nitrate as N	0.79		0.20		mg/L			02/09/18 13:35	1
Sulfate	31		1.2		mg/L			02/09/18 13:35	1
Sulfide	ND		0.50		mg/L			02/12/18 08:19	10
Total Organic Carbon	2.4		1.0		mg/L			02/22/18 15:55	1

Client Sample ID: RNS-MW2-20180208

Date Collected: 02/08/18 16:25

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67		0.90		mg/L			02/09/18 13:47	1
Nitrite as N	ND		0.40		mg/L			02/09/18 13:47	1
Nitrate as N	3.0		0.20		mg/L			02/09/18 13:47	1
Sulfate	26		1.2		mg/L			02/09/18 13:47	1
Sulfide	ND		0.050		mg/L			02/12/18 08:19	1
Total Organic Carbon	1.2		1.0		mg/L			02/22/18 15:55	1

Client Sample ID: RNS-MW6-52.5-20180208

Date Collected: 02/08/18 17:40

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26		0.90		mg/L			02/09/18 13:59	1
Nitrite as N	ND		0.40		mg/L			02/09/18 13:59	1
Nitrate as N	ND		0.20		mg/L			02/09/18 13:59	1
Sulfate	28		1.2		mg/L			02/09/18 13:59	1
Sulfide	ND		0.050		mg/L			02/12/18 08:19	1
Total Organic Carbon	2.2		2.0		mg/L			02/22/18 15:55	2

Client Sample ID: Dup1-20180208

Date Collected: 02/08/18 08:54

Date Received: 02/09/18 08:30

Lab Sample ID: 580-74987-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33		0.90		mg/L			02/09/18 14:11	1
Nitrite as N	ND		0.40		mg/L			02/09/18 14:11	1
Nitrate as N	ND		0.20		mg/L			02/09/18 14:11	1
Sulfate	ND		1.2		mg/L			02/09/18 14:11	1
Sulfide	ND		0.050		mg/L			02/12/18 08:19	1
Total Organic Carbon	4.3		1.0		mg/L			02/22/18 15:55	1

TestAmerica Seattle

QC Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-267325/7

Matrix: Water

Analysis Batch: 267325

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			02/14/18 16:20	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			02/14/18 16:20	1
Trichloroethene	ND		0.20		ug/L			02/14/18 16:20	1
Tetrachloroethene	ND		0.20		ug/L			02/14/18 16:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	105		74 - 118		02/14/18 16:20	1
Toluene-d8 (Surr)	103		75 - 125		02/14/18 16:20	1
1,2-Dichloroethane-d4 (Surr)	99		46 - 150		02/14/18 16:20	1
4-Bromofluorobenzene (Surr)	99		81 - 120		02/14/18 16:20	1
Dibromofluoromethane (Surr)	100		42 - 132		02/14/18 16:20	1

Lab Sample ID: LCS 580-267325/4

Matrix: Water

Analysis Batch: 267325

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	5.00	5.46		ug/L		109	59 - 140
cis-1,2-Dichloroethene	5.00	5.81		ug/L		116	73 - 130
Trichloroethene	5.00	5.89		ug/L		118	72 - 123
Tetrachloroethene	5.00	5.59		ug/L		112	67 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Trifluorotoluene (Surr)	101		74 - 118
Toluene-d8 (Surr)	97		75 - 125
1,2-Dichloroethane-d4 (Surr)	95		46 - 150
4-Bromofluorobenzene (Surr)	98		81 - 120
Dibromofluoromethane (Surr)	99		42 - 132

Lab Sample ID: LCSD 580-267325/5

Matrix: Water

Analysis Batch: 267325

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	5.00	4.92		ug/L		98	59 - 140	10	30
cis-1,2-Dichloroethene	5.00	5.53		ug/L		111	73 - 130	5	20
Trichloroethene	5.00	5.58		ug/L		112	72 - 123	5	20
Tetrachloroethene	5.00	5.27		ug/L		105	67 - 123	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Trifluorotoluene (Surr)	101		74 - 118
Toluene-d8 (Surr)	98		75 - 125
1,2-Dichloroethane-d4 (Surr)	95		46 - 150
4-Bromofluorobenzene (Surr)	99		81 - 120
Dibromofluoromethane (Surr)	99		42 - 132

TestAmerica Seattle

QC Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-267481/7

Matrix: Water

Analysis Batch: 267481

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			02/16/18 12:54	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			02/16/18 12:54	1
Trichloroethene	ND		0.20		ug/L			02/16/18 12:54	1
Tetrachloroethene	ND		0.20		ug/L			02/16/18 12:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	105		74 - 118		02/16/18 12:54	1
Toluene-d8 (Surr)	103		75 - 125		02/16/18 12:54	1
1,2-Dichloroethane-d4 (Surr)	103		46 - 150		02/16/18 12:54	1
4-Bromofluorobenzene (Surr)	99		81 - 120		02/16/18 12:54	1
Dibromofluoromethane (Surr)	101		42 - 132		02/16/18 12:54	1

Lab Sample ID: LCS 580-267481/4

Matrix: Water

Analysis Batch: 267481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	5.00	5.00		ug/L		100	59 - 140
cis-1,2-Dichloroethene	5.00	5.64		ug/L		113	73 - 130
Trichloroethene	5.00	5.70		ug/L		114	72 - 123
Tetrachloroethene	5.00	5.42		ug/L		108	67 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Trifluorotoluene (Surr)	101		74 - 118
Toluene-d8 (Surr)	97		75 - 125
1,2-Dichloroethane-d4 (Surr)	97		46 - 150
4-Bromofluorobenzene (Surr)	99		81 - 120
Dibromofluoromethane (Surr)	99		42 - 132

Lab Sample ID: LCSD 580-267481/5

Matrix: Water

Analysis Batch: 267481

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	5.00	4.65		ug/L		93	59 - 140	7	30
cis-1,2-Dichloroethene	5.00	5.46		ug/L		109	73 - 130	3	20
Trichloroethene	5.00	5.49		ug/L		110	72 - 123	4	20
Tetrachloroethene	5.00	5.21		ug/L		104	67 - 123	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Trifluorotoluene (Surr)	100		74 - 118
Toluene-d8 (Surr)	97		75 - 125
1,2-Dichloroethane-d4 (Surr)	99		46 - 150
4-Bromofluorobenzene (Surr)	99		81 - 120
Dibromofluoromethane (Surr)	99		42 - 132

TestAmerica Seattle

QC Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 280-405596/4
Matrix: Water
Analysis Batch: 405596

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.0050		mg/L			02/20/18 22:08	1
Ethylene	ND		0.0050		mg/L			02/20/18 22:08	1
Ethane	ND		0.0050		mg/L			02/20/18 22:08	1
Acetylene	ND		0.0050		mg/L			02/20/18 22:08	1

Lab Sample ID: LCS 280-405596/5
Matrix: Water
Analysis Batch: 405596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	0.146	0.142		mg/L		97	75 - 125
Ethylene	0.255	0.241		mg/L		95	75 - 125
Ethane	0.274	0.270		mg/L		99	75 - 125
Acetylene	0.237	0.211		mg/L		89	75 - 125

Lab Sample ID: 580-74987-7 DU
Matrix: Water
Analysis Batch: 405596

Client Sample ID: MW13-20180208
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Methane	0.0095		0.00833		mg/L		13	20
Ethylene	ND		ND		mg/L		NC	20
Ethane	ND		ND		mg/L		12	20
Acetylene	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-267128/3
Matrix: Water
Analysis Batch: 267128

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.90		mg/L			02/09/18 10:51	1
Sulfate	ND		1.2		mg/L			02/09/18 10:51	1

Lab Sample ID: LCS 580-267128/4
Matrix: Water
Analysis Batch: 267128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	52.6		mg/L		105	90 - 110
Sulfate	50.0	51.4		mg/L		103	90 - 110

Lab Sample ID: LCSD 580-267128/5
Matrix: Water
Analysis Batch: 267128

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	50.0	52.6		mg/L		105	90 - 110	0	15

TestAmerica Seattle

QC Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 580-267128/5
Matrix: Water
Analysis Batch: 267128

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	50.0	51.4		mg/L		103	90 - 110	0	15

Lab Sample ID: MB 580-267172/3
Matrix: Water
Analysis Batch: 267172

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.40		mg/L			02/09/18 10:51	1
Nitrate as N	ND		0.20		mg/L			02/09/18 10:51	1

Lab Sample ID: LCS 580-267172/4
Matrix: Water
Analysis Batch: 267172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	5.00	5.26		mg/L		105	90 - 110
Nitrate as N	5.00	5.26		mg/L		105	90 - 110

Lab Sample ID: LCSD 580-267172/5
Matrix: Water
Analysis Batch: 267172

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	5.00	5.27		mg/L		105	90 - 110	0	15
Nitrate as N	5.00	5.26		mg/L		105	90 - 110	0	15

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-404580/5
Matrix: Water
Analysis Batch: 404580

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050		mg/L			02/12/18 08:19	1

Lab Sample ID: LCS 280-404580/3
Matrix: Water
Analysis Batch: 404580

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	0.440	0.474		mg/L		108	85 - 115

Lab Sample ID: LCSD 280-404580/4
Matrix: Water
Analysis Batch: 404580

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	0.440	0.476		mg/L		108	85 - 115	0	10

TestAmerica Seattle

QC Sample Results

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-267736/3
Matrix: Water
Analysis Batch: 267736

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			02/20/18 13:01	1

Lab Sample ID: LCS 580-267736/4
Matrix: Water
Analysis Batch: 267736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.7		mg/L		107	85 - 115

Lab Sample ID: MB 580-267875/21
Matrix: Water
Analysis Batch: 267875

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			02/22/18 15:55	1

Lab Sample ID: MB 580-267875/3
Matrix: Water
Analysis Batch: 267875

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			02/22/18 15:55	1

Lab Sample ID: LCS 580-267875/22
Matrix: Water
Analysis Batch: 267875

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	9.86		mg/L		99	85 - 115

Lab Sample ID: LCS 580-267875/4
Matrix: Water
Analysis Batch: 267875

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.2		mg/L		102	85 - 115

Lab Chronicle

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Client Sample ID: LAI-MW1-20180208

Lab Sample ID: 580-74987-1

Date Collected: 02/08/18 11:20

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/14/18 20:18	T1W	TAL SEA
Total/NA	Analysis	RSK-175		1	405596	02/21/18 00:16	KRP	TAL DEN
Total/NA	Analysis	300.0		1	267128	02/09/18 11:26	MMM	TAL SEA
Total/NA	Analysis	300.0		1	267172	02/09/18 11:26	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	404580	02/12/18 08:19	JAP	TAL DEN
Total/NA	Analysis	SM 5310B		1	267736	02/20/18 13:01	MP	TAL SEA

Client Sample ID: LAI-MW2-20180208

Lab Sample ID: 580-74987-2

Date Collected: 02/08/18 10:10

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/14/18 20:45	T1W	TAL SEA
Total/NA	Analysis	8260C	DL	20	267481	02/16/18 19:15	P1P	TAL SEA
Total/NA	Analysis	RSK-175		1	405596	02/21/18 00:30	KRP	TAL DEN
Total/NA	Analysis	300.0		1	267128	02/09/18 11:38	MMM	TAL SEA
Total/NA	Analysis	300.0		1	267172	02/09/18 11:38	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	404580	02/12/18 08:19	JAP	TAL DEN
Total/NA	Analysis	SM 5310B		1	267736	02/20/18 13:01	MP	TAL SEA

Client Sample ID: LAI-MW3-20180208

Lab Sample ID: 580-74987-3

Date Collected: 02/08/18 12:35

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/14/18 21:11	T1W	TAL SEA
Total/NA	Analysis	8260C	DL	10	267481	02/16/18 19:42	P1P	TAL SEA
Total/NA	Analysis	RSK-175		1	405596	02/21/18 00:44	KRP	TAL DEN
Total/NA	Analysis	300.0		1	267128	02/09/18 12:25	MMM	TAL SEA
Total/NA	Analysis	300.0		1	267172	02/09/18 12:25	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	404580	02/12/18 08:19	JAP	TAL DEN
Total/NA	Analysis	SM 5310B		1	267736	02/20/18 13:01	MP	TAL SEA

Client Sample ID: LAI-MW4-20180208

Lab Sample ID: 580-74987-4

Date Collected: 02/08/18 08:50

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/14/18 21:38	T1W	TAL SEA
Total/NA	Analysis	RSK-175		1	405596	02/21/18 00:59	KRP	TAL DEN

TestAmerica Seattle

Lab Chronicle

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Client Sample ID: LAI-MW4-20180208

Lab Sample ID: 580-74987-4

Date Collected: 02/08/18 08:50

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	267128	02/09/18 12:37	MMM	TAL SEA
Total/NA	Analysis	300.0		1	267172	02/09/18 12:37	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	404580	02/12/18 08:19	JAP	TAL DEN
Total/NA	Analysis	SM 5310B		1	267875	02/22/18 15:55	MP	TAL SEA

Client Sample ID: LAI-MW5-20180208

Lab Sample ID: 580-74987-5

Date Collected: 02/08/18 14:55

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/14/18 22:04	T1W	TAL SEA
Total/NA	Analysis	RSK-175		1	405596	02/21/18 01:13	KRP	TAL DEN
Total/NA	Analysis	300.0		1	267128	02/09/18 13:12	MMM	TAL SEA
Total/NA	Analysis	300.0		1	267172	02/09/18 13:12	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	404580	02/12/18 08:19	JAP	TAL DEN
Total/NA	Analysis	SM 5310B		2	267875	02/22/18 15:55	MP	TAL SEA

Client Sample ID: MW2-20180208

Lab Sample ID: 580-74987-6

Date Collected: 02/08/18 16:05

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/14/18 22:31	T1W	TAL SEA
Total/NA	Analysis	RSK-175		1	405596	02/21/18 01:27	KRP	TAL DEN
Total/NA	Analysis	300.0		1	267128	02/09/18 13:24	MMM	TAL SEA
Total/NA	Analysis	300.0		1	267172	02/09/18 13:24	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	404580	02/12/18 08:19	JAP	TAL DEN
Total/NA	Analysis	SM 5310B		1	267875	02/22/18 15:55	MP	TAL SEA

Client Sample ID: MW13-20180208

Lab Sample ID: 580-74987-7

Date Collected: 02/08/18 13:45

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/14/18 22:57	T1W	TAL SEA
Total/NA	Analysis	8260C	DL	20	267481	02/16/18 20:08	P1P	TAL SEA
Total/NA	Analysis	RSK-175		1	405596	02/21/18 01:55	KRP	TAL DEN
Total/NA	Analysis	300.0		1	267128	02/09/18 13:35	MMM	TAL SEA
Total/NA	Analysis	300.0		1	267172	02/09/18 13:35	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		10	404580	02/12/18 08:19	JAP	TAL DEN
Total/NA	Analysis	SM 5310B		1	267875	02/22/18 15:55	MP	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Client Sample ID: RNS-MW2-20180208

Lab Sample ID: 580-74987-8

Date Collected: 02/08/18 16:25

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/14/18 23:24	T1W	TAL SEA
Total/NA	Analysis	8260C	RA	1	267481	02/16/18 14:50	P1P	TAL SEA
Total/NA	Analysis	RSK-175		1	405596	02/21/18 02:24	KRP	TAL DEN
Total/NA	Analysis	300.0		1	267128	02/09/18 13:47	MMM	TAL SEA
Total/NA	Analysis	300.0		1	267172	02/09/18 13:47	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	404580	02/12/18 08:19	JAP	TAL DEN
Total/NA	Analysis	SM 5310B		1	267875	02/22/18 15:55	MP	TAL SEA

Client Sample ID: RNS-MW6-42.5-20180208

Lab Sample ID: 580-74987-9

Date Collected: 02/08/18 17:00

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/14/18 23:50	T1W	TAL SEA
Total/NA	Analysis	8260C	DL	40	267481	02/16/18 20:35	P1P	TAL SEA

Client Sample ID: RNS-MW6-52.5-20180208

Lab Sample ID: 580-74987-10

Date Collected: 02/08/18 17:40

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/15/18 00:17	T1W	TAL SEA
Total/NA	Analysis	8260C	DL	20	267481	02/16/18 21:02	P1P	TAL SEA
Total/NA	Analysis	RSK-175		1	405596	02/21/18 02:38	KRP	TAL DEN
Total/NA	Analysis	300.0		1	267128	02/09/18 13:59	MMM	TAL SEA
Total/NA	Analysis	300.0		1	267172	02/09/18 13:59	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	404580	02/12/18 08:19	JAP	TAL DEN
Total/NA	Analysis	SM 5310B		2	267875	02/22/18 15:55	MP	TAL SEA

Client Sample ID: Dup1-20180208

Lab Sample ID: 580-74987-11

Date Collected: 02/08/18 08:54

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/15/18 00:43	T1W	TAL SEA
Total/NA	Analysis	8260C	RA	1	267481	02/16/18 15:16	P1P	TAL SEA
Total/NA	Analysis	RSK-175		1	405596	02/21/18 02:52	KRP	TAL DEN
Total/NA	Analysis	300.0		1	267128	02/09/18 14:11	MMM	TAL SEA
Total/NA	Analysis	300.0		1	267172	02/09/18 14:11	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	404580	02/12/18 08:19	JAP	TAL DEN

TestAmerica Seattle

Lab Chronicle

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Client Sample ID: Dup1-20180208

Lab Sample ID: 580-74987-11

Date Collected: 02/08/18 08:54

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5310B		1	267875	02/22/18 15:55	MP	TAL SEA

Client Sample ID: TripBlank-20180208

Lab Sample ID: 580-74987-12

Date Collected: 02/08/18 00:01

Matrix: Water

Date Received: 02/09/18 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	267325	02/14/18 16:47	T1W	TAL SEA

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Landau & Associates, Inc.
Project/Site: Sauro's

TestAmerica Job ID: 580-74987-1

Laboratory: TestAmerica Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C553	02-17-19

Analysis Method	Prep Method	Matrix	Analyte

Laboratory: TestAmerica Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	DoD ELAP		2907.01	10-31-19
A2LA	ISO/IEC 17025		2907.01	10-31-19
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-18
Arizona	State Program	9	AZ0713	12-20-18
Arkansas DEQ	State Program	6	88-0687	06-01-18
California	State Program	9	2513	01-18-19
Connecticut	State Program	1	PH-0686	09-30-18
Florida	NELAP	4	E87667	06-30-18
Georgia	State Program	4	N/A	01-08-18 *
Illinois	NELAP	5	200017	04-30-18
Iowa	State Program	7	370	12-01-18
Kansas	NELAP	7	E-10166	04-30-18
Louisiana	NELAP	6	02096	06-30-18
Maine	State Program	1	CO0002	03-03-19
Minnesota	NELAP	5	8-999-405	12-31-18
Nevada	State Program	9	CO0026	07-31-18
New Hampshire	NELAP	1	205310	04-28-18
New Jersey	NELAP	2	CO004	06-30-18
New York	NELAP	2	11964	04-01-18
North Carolina (WW/SW)	State Program	4	358	12-31-18
North Dakota	State Program	8	R-034	01-08-19
Oklahoma	State Program	6	8614	08-31-18
Oregon	NELAP	10	4025	01-08-19
Pennsylvania	NELAP	3	68-00664	07-31-18
South Carolina	State Program	4	72002001	01-08-19
Texas	NELAP	6	T104704183-17-14	09-30-18
USDA	Federal		P330-16-00397	12-15-19
Utah	NELAP	8	CO00026	07-31-18
Virginia	NELAP	3	460232	06-14-18
Washington	State Program	10	C583	08-03-18
West Virginia DEP	State Program	3	354	12-31-18
Wisconsin	State Program	5	999615430	08-31-18
Wyoming (UST)	A2LA	8	2907.01	10-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.